

Mashantucket Pequot Tribal Nation Land Use Regulations



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HISTORY

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
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| 20-Jun-14 | LU-14-079 | Codified as 1 L.U.R. pursuant to TCR052914-04 of 10 |
| 08-Dec-14 | TCR121114-03 of 10 | Amends 14 M.P.T.L & this title by adding Food Safety & Sanitation to LUC. |
| 28-Jun-19 | Administrative | Corrected a number of inaccurate code references. |

TITLE 1. COMMISSION PROCEDURES

CHAPTER 1. COMMISSION

§ 1. Scope and Purpose

a. This Title outlines the procedures which the Land Use Commission shall adhere to when carrying out the duties and responsibilities authorized within 14 M.P.T.L., the Land Use Law.

b. The purpose of this Title is to standardize, and make available to the regulated community, the procedures of the Land Use Commission and to define the general obligations of all Commissioners charged with the responsibility of ensuring compliance with the Land Use Law.

§ 2. Administration

a. Administration of the Commission, unless otherwise specifically designated by Tribal Council, will be the responsibility of the MPTN Regulatory Affairs Officer who shall serve as the Commission Administrator.

- (1) In the event of the Administrator's temporary absence, the Administrator shall appoint a Commissioner to serve as the temporary Administrator until his return.
- (2) In the event that the Administrator had not appointed a temporary Administrator, one shall be selected by a majority vote at each Commission meeting prior to the commencement of any other official business.
- (3) In the continued absence of the Administrator, the temporary Administrator shall serve in that capacity until the next Commission meeting or the return of the Administrator, whichever occurs sooner.

b. Commission Administration shall include an Administrative Assistant, appointed by the Administrator, who shall serve as an agent of the Administrator responsible for maintaining the record of Commission business.

§ 3. Voting Commissioners

a. Unless specifically appointed by Tribal Council, each department or program discipline shall be represented as described:

- (1) **Fire Safety** - shall be represented by the MPTN Fire Chief or Fire Marshal. In the event that the Fire Marshal position is vacant and the Chief is unable to serve, the Chief will appoint, on an interim basis, a member of the MPTN Fire Department who is familiar with and understands the application of the MPTN Fire Prevention Code (3 L.U.R.).
- (2) **Historic Preservation** – shall be represented by the Tribal Historic Preservation Officer (THPO) or, in the event that the THPO position is vacant, a tribal member appointed by the Historical and Cultural Preservation Committee who is both familiar with the National Historic Preservation Act and the cultural and historic preservation values of the tribe.
- (3) **Natural Resources Protection** – shall be represented by the director of the tribal department responsible for Natural Resources Protection. In the event that the Director's experience is not within the field of environmental protection and/or the Director is not familiar with tribal and federal environmental protection regulations, then he shall appoint such a qualified employee from the Natural Resources Protection program discipline.

- (4) **Building Code Enforcement** – shall be represented by the MPTN Building Official or, in the event that the Building Official position is vacant, the director of the tribal department responsible for Building Code Enforcement. In the event that the Director's experience is not within the field of inspection and code enforcement and/or the Director is not familiar with the Building Code, then he shall appoint a qualified employee from the Building Code Enforcement program discipline.
- (5) **Utilities** – shall be represented by the Director of MPTN Utilities. In the event that the Director is unable to serve he shall appoint an employee who has knowledge of MPTN's utility infrastructure and standards.
- (6) **Planning and Zoning** – shall be represented by the MPTN Zoning Officer or, in the event that a Zoning Officer has not specifically been named, by the director of the tribal department responsible for the Planning function. In the event that the Director's experience is not within the field of planning and/or the Director is not familiar with the MPTN Zoning Regulation, then he shall appoint a qualified employee from the Planning program discipline.
- (7) **Tribal Member Community** – shall be represented by a Mashantucket Pequot Tribal Member appointed to the Commission by Tribal Council. In the event that Council has not specifically appointed a Community representative, it shall be assumed that Council believes that the Commission has adequate Tribal Member representation. However, if at any time Tribal Member representation is less than two Commissioners, the Administrator shall be responsible for providing notice of such to Tribal Council.
- (8) **Mashantucket Pequot Gaming Enterprise** – shall be represented by the vice president with responsibilities over resort engineering and project management services. In the event that the vice president is unable to serve he shall appoint a high level manager with knowledge of resort infrastructure and engineering and project management services.
- (9) **Food Safety and Sanitation** – shall be represented by the manager of the tribal program responsible for enforcing the Tribal Food Law (26 M.P.T.L) and conducting environmental health inspections of commercial facilities. In the event that the manager cannot serve the director of the department responsible for the Food Safety program will appoint a qualified environmental health inspector.

b. The members of the Commission shall collectively, as a result of training and experience, be well qualified to analyze and interpret environmental trends, regulations, planning and construction designs, building and safety codes, and to appraise the scientific, economic, social, aesthetic, and cultural needs and interests of the Tribe in light of the policies set forth herein. Members of the Commission shall serve without compensation.

c. Commissioners may appoint an alternate to represent them from time to time.

- (1) Alternates shall, as a result of training and experience, be qualified to review construction design documents and interpret regulations applicable to the program discipline they represent.
- (2) When naming an Alternate, Commissioners shall:
 - (a) provide notice of such appointment to the Administrator,
 - (b) accept responsibility for the alternate's actions and ensure that the alternate is provided all review materials and Commission correspondence related to the matters before the Commission at that time.

CHAPTER 2. LAND USE REGULATION

§ 1. Types of Land Use Regulation

Land Use Regulation shall mean this entire body of Regulations, Codes or Standards, promulgated or otherwise adopted as specified within 14 M.P.T.L. Ch 4.

a. **Regulations** – The Commission shall promulgate Regulations when necessary for establishing jurisdictional authority over particular Land Use Activities. Regulations may include discretely applicable requirements in addition to those specified within 14 M.P.T.L., such as permits, procedures, enforcement provisions, and fees.

b. **Codes** – The Commission shall promulgate, amend, or adopt codes or reference standards that specify the minimum standards, for Land Use Activities, necessary to ensure the health, safety and welfare of all residents, employees and guests within Mashantucket.

c. **Standards** – The Commission shall promulgate, amend, or adopt program specific standards that specify the minimum requirements Commissioners will require when considering applications.

§ 2. Drafting Regulation

a. It shall be the responsibility of each Commissioner to propose for Commission consideration elements of a Land Use Regulation specific to the subject discipline they represent on the Commission.

b. In the event of conflicting jurisdictional authority between two Commissioners, the Administrator will assist in the Land Use Regulation development by assuring a coordinated effort and mediating potential conflict between Commissioners.

c. Draft Land Use Regulations shall be presented to the Land Use Commission for consideration by general vote. If approved, the Land Use Regulation shall be vetted by General Counsel and ratified as specified within 14 M.T.P.L. ch. 4.

§ 3. Applying Land Use Regulation - General Rules

a. The body Land Use Regulation, of which this is Title I, is comprised of Regulations, Codes, and Standards. The Commission's responsibility to enforce compliance with such differs slightly due to the process through which each was adopted.

- (1) Regulations are established through a process which, at minimum, involved vetting by Tribal Committees and Tribal Council. Therefore, Commissioners shall not question the necessity or validity of any provision within a Regulation. By nature of their jurisdictional claim, regulations may have their own specific procedures for consideration of variances, equivalencies or appeals which must be followed.
- (2) Codes are established minimum standards which were drafted by a team of experts to ensure public health and safety. Commissioners are cautioned not to confuse their authority to issue formal variances to a Code requirement with that of accepting equivalent compliance allowed within such Code. Commissioners may question interpretation of a Code but not the necessity of the Code requirement unless they are prepared to remove the specific provision in question from the Land Use Regulations.
- (3) Standards are Commission established minimum requirements typically demanded when considering applications. Therefore, Commissioners may determine that a particular provision of a Standard is not necessary on a case-by-case basis even if doing so conflicts with a Standard.

b. The MPTN Land Use Commission was established to streamline MPTN's regulatory review process. Commissioners who oversee regulatory programs which either require compliance prior to or following issuance of a Land Use Permit should work with Commission Administration to ensure that Applicants are well informed of such requirements.

- (1) The Administrator shall ensure that Commissioners' typical requirements are included within a Land Use Permitting Fact Sheet available to the public via the internet for download by perspective Applicants.
- (2) The Administrator shall ensure that the Permit Application Form includes the general information which Commissioners may require for their assessment of activity requirements.
- (3) The Administrator, when providing notice of an Application to Commissioners shall highlight for Commissioners those specific elements identified on the Application form needed for the Commissioners to assess the relevancy of their program requirements.

CHAPTER 3. PERMIT APPLICATION

§ 1. Minimum Requirements

- a. An application for a Land Use Permit shall be made through the use of forms designated by the Administrator.
- b. Application forms shall contain, at a minimum, the following information:
 - (1) the name and general role of the Applicant (e.g. owner, owners rep., project manager);
 - (2) the location of the proposed Land Use Activity;
 - (3) a concise and factual description of the proposed Land Use Activity including -
 - (a) any proposed physical construction,
 - (b) any proposed new use, material change or expansion of existing uses,
 - (c) any proposed change to, or use of, utility infrastructure such as new utility services, changes to interior circuits or plumbing, whether water, gas or drain.
 - (d) any proposed change resulting in an increase of utility demand, a change in the character of sanitary discharge or installation of equipment intended to treat or condition utility provided supplies,
 - (e) any proposed activity or change of use with the potential to impact public safety, impact existing life safety systems, change the occupancy of a room or that necessitate a change to any emergency plan or procedure,
 - (f) any activity with the potential to impact natural resources including deposition or discharge to air, water or land, cutting of native vegetation, or an activity with the potential to cause a release of a polluting substance to the native environment,
 - (g) any potential impact to cultural or historic resources of the Tribe;
 - (4) the period of time for which the Permit is requested (i.e. start date & duration of activity);
 - (5) a certifying statement that the information contained is, to the best knowledge of the Applicant, correct.
 - (6) A certifying statement that the Total Cost of the Activity was calculated as defined within 14 M.P.T.L., Ch. 5, § 4; and
 - (7) A certifying statement that, if required, the Applicant will provide record as-built drawings per MPTN standards.
- c. An Application shall not be deemed complete unless the Application Fee is paid.

§ 2. Typical Requirements

- a. Five hard copy sets, and an electronic version, of all plans and specifications, including:
 - (1) Plan sheets and specifications necessary to depict:
 - (a) all information necessary for the fields of trade involved with the activity;
 - (b) compliance with all applicable codes (e.g. building, fire, and safety codes); and
 - (c) conformance with any other applicable Land Use Regulation (e.g. wetland buffers, zoning setbacks, and/or utility standards).
 - (2) Any other studies, reports, or other information prepared to demonstrate compliance with applicable Land Use Regulation.
- b. In the case of a phased Land Use Activity, the applicant shall submit:
 - (1) overview plans sufficient to provide the Commission with an understanding of the scope and extent of the entire project; and
 - (2) complete detailed plans and specifications for each phase of the activity.

§ 3. Stamped Plans Required

a. The Commission may require that drawings and specifications be Stamped by the Design Professional in Responsible Charge. When required, drawings must be prepared, signed and dated by an architect or engineer duly authorized and licensed to practice in the state of Connecticut. The following activities will require Stamped drawings prior to issuance of a Land Use Permit.

- (1) All new commercial buildings regardless of occupancy type or size.
- (2) Any renovation to, or new construction being performed to, an existing commercial structure which involves:
 - (a) major mechanical, plumbing or electrical changes or additions.
 - (b) any structural change or addition.
 - (c) a change of occupancy which requires modification to life safety systems or which necessitates a change to the means of egress impacting the overall master egress plan of the facility.
- (3) Residential construction activities consisting of:
 - (a) Non-conventional light-frame construction,
 - (b) truss systems,
 - (c) retaining walls over forty-eight inches high,
 - (d) foundations with pilings or caissons,
 - (e) roofs on posts such as carports and patio covers which are freestanding or which extend more than 6' beyond the building to which they are attached,
 - (f) wall bracing systems, or
 - (g) buildings with more than two stories.

b. Any required drawings may be limited to reflect only the information needed in the required fields of trade. For instance, plumbing drawings would not be required if no changes were being made to the plumbing.

c. The Commission, at its discretion, may accept documents Stamped by Design Professionals in Responsible Charge licensed by states other than Connecticut.

§ 4. Land Use Fee

- a. Any person who requires a Permit from the Commission must pay the Land Use Fee defined within 14 M.P.T.L. ch. 5, §4.
- b. An Application shall not be deemed complete until the fee is paid.
 - (1) The Commission may commence review but shall not take final action on an incomplete Application.
 - (2) Under unique circumstances the Commission may consider a reduction in the amount of the fee due with an Application.
 - (3) The Commission has determined that the minimum Land Use Fee for all Commercial Activities shall be fifty dollars (\$50).
- c. The Commission shall consider requests to reduce the amount of the Fee due with an Application at an official Commission meeting.
 - (1) The Commission shall only consider such requests when the Total Cost of the Activity exceeds two million dollars (\$2,000,000).
 - (2) The Commission shall not set the amount due with the Application to less than twenty percent (20%) of the Land Use Fee.
 - (3) When determining whether to reduce the amount due with the Application the Commission shall consider added financial burden to the Applicant due to:
 - (a) the length of the anticipated review period;
 - (b) the length of time before the anticipated start of the proposed activity; and,
 - (c) the expected length of the activity schedule.
 - (4) When establishing a reduced Application Fee the Commission shall ensure that, at minimum, the fee will:
 - (a) cover all direct and in-direct costs associated with the Commissioners' review, and
 - (b) be sufficient to pay for any third party review, inspection and testing, services which the Commission may require.
 - (5) If the Commission reduces the amount due with the Application they shall establish a payment schedule for the balance of the Land Use Fee. When establishing the payment schedule the Commission shall require an installment to be due prior to the commencement of construction activities and set installment amount by considering:
 - (a) the degree to which the activity will permanently alter the native environment and/or impact cultural resources (e.g. clearing & grading); and,
 - (b) the degree to which project activities would impact existing operations if the activity were commenced but not completed.
 - (6) Installments shall be scheduled such that it will ensure cash flow sufficient to satisfy all Commission expenses and obligations related to the activity.
 - (a) If any installment payment is not received by the established due date:
 - (i) the full balance of the Land Use Fee will be due and payable within thirty (30) calendar days.
 - (ii) Failure to pay the full Land Use Fee will null and void the permit issued.
 - (b) Any balance on the Land Use Fee may be paid prior to the maturity date without penalty.

- (c) Upon a change in ownership of the activity, the full balance of the Land Use Fee is due and payable within 30-days, otherwise the issued permit shall become null & void and require a new permit consistent with all provisions specified within this chapter.
- d. Payment of Balance
 - (1) The Applicant is required to notify the Administrator within ten (10) business days of being made aware of any significant change in the estimated Total Cost of the Activity used to calculate the Land Use Fee.
 - (a) If such change increases the Land Use Fee, the balance shall be payable the earlier of:
 - (i) Commission issuance of a final Certificate of Completion, or
 - (ii) thirty (30) calendar days following notification from the Commission that Commission costs related to the activity have exceeded the amount previously paid.
 - (b) If such a change decreases the Land Use Fee, the balance, less any expenses and costs incurred by the Commission, will be returned to Applicant following issuance of the final Certificate of Completion; provided that, the Applicant requests such a refund at least thirty (30) calendar days prior to the date the Commission issues the Certificate of Completion.
 - (2) Failure to provide timely notice to the Commission of a significant change in Total Cost of the Activity may result in:
 - (a) enforcement action including suspension or revocation of the permit issued;
 - (b) significant delay, or ultimate denial, of a Certification of Completion; and,
 - (c) forfeiture of any potential reimbursement.
 - (3) In the event that the Commission suspects that a significant increase in Total Cost of the Activity has occurred, for which it has not received notice, the Commission shall request a response from the Applicant and notify MPTN Finance.
 - (a) The Commission shall not issue a Certificate of Completion until either payment of the full Land Use Fee is received or until MPTN Finance has determined that the Commission need not pursue the matter.
 - (b) If the Applicant has responded and fifteen (15) business days has passed without a response from MPTN Finance, the Commission shall reach the presumptive conclusion that MPTN Finance takes no exception to the Applicant's response.
 - (c) The Commission may take any enforcement action, allowed by the Land Use Law, necessary to assist MPTN Finance with their assessment and/or to compel payment by the Applicant.
- e. The Application Fee, less any expenses and costs incurred by the Commission, will be returned to Applicant, upon timely request, when the Application is withdrawn or denied, or if a Permit is granted and the project is cancelled prior to the start of construction or commencement of the Land Use Activity.
 - (1) The Applicant must make such request within thirty (30) calendar days of:
 - (a) being notified that the Application has been denied,
 - (b) providing notice that the activity has been cancelled prior to construction commencing,
 - (c) providing notice that the Application is withdrawn, or
 - (d) the date an issued permit becomes null and void pursuant to 14 M.P.T.L Ch. 6, § 4.
 - (2) No portion of the Application Fee shall be refundable if the project is cancelled after construction has commenced.

CHAPTER 4. CONSULTATION

For the purpose of this section the term Applicant shall also mean a prospective Applicant, the Applicant's project manager or any member of the Applicant's design team.

§ 1. Formal Consultation

a. Commissioners shall encourage perspective Applicants to engage the Commission early in the project design.

- (1) Early Commission participation will help the Applicant:
 - (a) vet requirements, issues and concerns,
 - (b) identify long lead requirements (e.g. environmental or archeological assessments), and
 - (c) avoid potentially costly design changes.
- (2) Engaging the Commission with routine design progress updates will aid review and shorten the overall permitting process.

b. Formal consultation, whether prior to or after submission of an Application, shall occur at Commission meetings which shall be recorded and minutes of the meeting prepared.

- (1) Instruction, guidance or direction provided by the Commission during a formal consultation meeting shall become part of the official record.
- (2) Any subsequent change in direction, guidance or direction provided to the Applicant by the Commission outside of a formal consultation meeting shall be:
 - (a) provided, with the justification for such change, in writing to the prospective applicant in as timely a manner as possible, and
 - (b) read into the record at the next official Commission meeting.

§ 2. Informal Consultation

a. Commissioners are encouraged to engage an Applicant in informal consultation, outside of Commission Meetings, as often as necessary to facilitate their timely review.

b. At all times during informal consultation, Commissioners shall be explicit with the Applicant that they represent only one of many program disciplines which make up the Commission. Commissioners are to request the Applicant make all post Application submittals to Commission Administration. Submittals received by a Commissioner shall immediately be forwarded to Commission Administration.

c. Commissioners shall refrain from, "acting as the middle man," by attempting to resolve questions best answered by another Commissioner. If an Applicant raises questions or concerns related to another program discipline represented on the Commission, the Commissioner shall:

- (1) refrain from providing guidance or opinion concerning such issues and refer the Applicant to the appropriate Commissioner, or
- (2) if multiple disciplines are involved, refer the Applicant to the Administrator who will schedule a formal consultation before the entire Commission.

d. Direction provided by a Commissioner, or commitments made by the Applicant, during informal consultation, which either party will rely on must be made part of the Application's record by:

- (1) the Commissioner providing written notice of the consultation, and direction provided, to the prospective Applicant and the Administrator, or

- (2) the Applicant providing written notice of the consultation, and the specific direction provided, to the Administrator. In such cases the notice will only become part of the official record after the Administrator obtains confirmation of its validity from the appropriate Commissioner.
 - (a) If the source of the notice is minutes of a meeting, the Administrator shall verify the accuracy of such with the pertinent party (Applicant or Commissioner) who did not draft such minutes. The Administrator shall highlight the applicable summary of the direction provided, or commitment made, and only that portion of the document shall be considered part of the official record.
 - (b) Commissioners are responsible for providing the Applicant and the Administrator with timely written notice of any subsequent change in previously provided direction. Such notice must include the justification for the change.
 - (c) Failure of the Applicant to follow through with a commitment, or comply with a Commissioner's direction, which had not been made part of the official record shall not be used by any Commissioner as a basis for denying an Application unless the direction provided is relevant to a specific provision within Tribal Law, Land Use Regulation or other applicable federal requirement.

CHAPTER 5. REVIEW

§ 1. Administrative Review

- a. The Administrator will recommend Administrative Review for any Application which, he believes, is pertinent mainly to one program discipline represented on the Commission, or multiple disciplines which are likely to share similar project related concerns (e.g. Building Code Enforcement and Fire Marshal).
- b. The Administrator will select the Commissioner best qualified to examine the Application for compliance with applicable Land Use Regulations. The selected Commissioner, while reviewing and considering the Application, shall:
 - (1) inform the Commission of any findings or proposed activity changes which warrant consideration by other Commissioners,
 - (2) vet any and all concerns expressed by other Commissioners,
 - (3) maintain a record of all subsequent submittals and correspondence utilized when rendering their decision which must be provided to the Administrator upon the Commissioner's final action.
 - (4) provide the Commission with notice of any formal action taken.
- c. Prior to final action any Commissioner may request that the Application be brought before the entire Commission for consideration.
- d. The reviewing Commissioner shall, within a period of no more than twelve (12) business days, either approve the application or return it to the Administrator for consideration by full Commission.
- e. If at any time during the Administrative review, the reviewing Commissioner cannot resolve his concerns, or those expressed by other Commissioners, he is to return the application to the Administrator for consideration by full Commission.
- f. Conditional approval of an administratively reviewed permit is permissible.
 - (1) Conditions of approval shall become part of the application and constitute enforceable permit provisions.
 - (2) The Applicant shall have the right to refuse administratively reviewed conditions of approval and request that the application be considered by the full Commission.

§ 2. Commission Review**a. Commission Review Period**

- (1) When the application with supporting materials and fee are received, and deemed to be substantially complete, the Administrator shall provide notice to all Commissioners and the Commission review period will commence.
- (2) The initial review period shall last no more than twelve (12) business days during which time Commissioners are to review the materials submitted and provide comments to the Administrator.
- (3) Prior to the end of the initial review period Commissioners may:
 - (a) request that the Applicant provide additional information, studies or reports to assist in the review;
 - (i) Additional information requests must be relevant to the purposes and policies of the Land Use Law.
 - (ii) If additional information is requested, the Administrator shall notify the Applicant of the requested information and may set a reasonable time period for the submission of the information.
 - (iii) The initial review period shall restart commencing the day the Applicant provides the requested information.
 - (b) provide the Administrator with notice that additional review time is required;
 - (i) When requesting additional review time the Commissioner shall provide the Administrator with justification of the need and a reasonable date when the Commissioner will complete their review.
 - (ii) The Administrator shall notify the Applicant of any requested review period extension.
 - (c) provide the Administrator with notice that third-party review is necessary; and/or.
 - (i) The Administrator, with the assistance of the requesting Commissioner, shall determine the scope of services required and submit a request MPTN Procurement to bid such services.
 - (ii) The Administrator shall, with assistance from MPTN Finance, determine whether the cost of such services shall be invoiced to the Applicant as part of the Land Use Fee as allowed by 14 M.P.T.L. ch. 5, §4, d(3).
 - (iii) The Administrator shall notify the Applicant of the anticipated delay in the review and any additional cost.
 - (d) request a review hearing.
 - (i) The Administrator shall schedule the hearing as soon as practicable at the convenience of the Applicant and Commission.
 - (ii) The Applicant shall present the project and be prepared to answer Commission questions at the review hearing.
 - (iii) If at the conclusion of the Applicant's presentation there are no outstanding Commission issues, the Commission can move consideration of the project for vote, otherwise;
 - (iv) the commission review period shall reset from the day of the hearing.
- (4) In the event that the Administrator receives no response from a Commissioner by the conclusion of a review period, the Administrator will consider such as meaning that Commissioner takes no issue with the Application as it exists at that time.

- (5) The Administrator shall provide all Commissioners' comments/requests to the Applicant in a timely manner, but no later than one business day following the end of the applicable Commission review period.
- b. Upon completion of the review period it shall be the responsibility of the Administrator to determine the extent of outstanding Commission issues and gauge the relative concern of the Commission members related to the Application.
 - (1) If, at the conclusion of the review period, there are still significant outstanding issues, the Administrator shall:
 - (a) provide the Applicant with the written findings of the Commission, and;
 - (b) if warranted, coordinate with the Applicant and Commission a mutually conducive time to convene a Commission meeting to discuss outstanding issues, and
 - (c) extend the review period by no more than twelve (12) business days from date the Applicant addresses the outstanding issues.
 - (2) If, at the conclusion of the review period, the Administrator believes that all outstanding issues have been addressed and that the Commission is content with the application he may move consideration for electronic vote.
 - (3) Otherwise the Administrator shall schedule a Commission meeting to consider the Application.
 - (a) Notice of such meeting shall be provided to the Applicant, and
 - (b) If the Applicant desires to attend the meeting, or if the Commission requests the Applicant be present, the Administrator shall coordinate mutually conducive meeting time.

CHAPTER 6. MEETINGS AND VOTES

§ 1. Scheduling of Meetings

- a. The Administrator shall schedule Commission meetings as necessary to:
 - (1) afford Applicants the opportunity for formal consultation before the Commission;
 - (2) review, approve, modify or deny Permits, not otherwise considered administratively or electronically; or
 - (3) conduct any other official business such as considering variances or enforcement actions.
- b. Meetings shall be recorded and minutes prepared summarizing the actions items for future consideration by the Commission.
- c. Meetings are to be closed to all but Commissioners, the Administrative Assistant, the representative from the Office of Legal Counsel, Subject Matter Experts invited by the Administrator and guests having business before the Commission at that time.
- d. If any tribal member or employee of the tribe has issues or concerns with any matter before the Commission they shall address such to the Commissioner(s) whose program discipline is pertinent to the issue. Commissioners shall be obligated to bring forth to the Commission such issues from the public and report back to those persons who had referred the matter to them.
- e. When scheduling meetings the Administrator shall:
 - (1) provide notice to any Applicant whose Application is included on the proposed agenda; and
 - (2) confirm the availability of all those Commissioners who the Administrator would reasonably expect could have a concern with any item included on the proposed agenda.

§ 2. General Conduct of Meetings

- a. The Administrator shall chair Commission meetings.
 - (1) In the event of the Administrators' absence, Commissioners shall appoint by majority vote a temporary Administrator to chair the meeting.
 - (2) The temporary Administrator shall carry out the duties of the Administrator until the earlier of the Administrators' return to work, or the next Commission meeting.
- b. In their absence Commissioners may be represented by:
 - (1) their alternates if duly appointed pursuant to Ch. 1, § 2 c. of this Title, or
 - (2) participating via live communication media.
- c. No official business may be conducted absent a quorum, defined as four (4) Commissioners present (14 M.P.T.L. Ch. 2., b(30)), except that Commissioners present may:
 - (1) review and approve minor changes to a permitted activity; and,
 - (2) act in an emergency to address issues which require immediate attention.
 - (a) Any action taken in an emergency must be subsequently approved through normal Commission voting procedures.
 - (b) In the event that an emergency action is not subsequently approved, the Administrator shall compel cessation of any activity commenced upon an emergency action.
- d. Prior to conduct of any other business the Administrator will commence with a roll call, identify any subject matter experts present and open the floor for motions to approve or modify the proposed agenda.
- e. Meetings shall progress by:
 - (1) the Administrator reading each agenda item into the record; then
 - (2) inviting the Applicant, if present, to present their Application and discuss the nature of their proposed activity.
- f. Each guest in attendance shall sign the attendance sheet and state their name for the record prior to speaking.
- g. Open discussion shall commence once the agenda item has been read and the Applicant's presentation, if any, is completed.
- h. At any time during open discussion, Commissioners may:
 - (1) request that guests step out of the meeting;
 - (2) motion to table the matter at hand for subsequent:
 - (a) consideration at the next meeting; or;
 - (b) electronic vote prior to the next meeting.
 - (3) motion the matter at hand for approval; conditional approval; or denial;
 - (4) motion to move to executive session;
 - (5) motion to reconsider any action taken by the Commission during that meeting; or
 - (6) motion to adjourn.
- i. All motions require a second motion prior to final vote by the Commission.

§ 3. Commission Vote

- a. Once a motion has been seconded the Administrator shall ask if there are any questions concerning the motion prior to calling for the vote.

- b. The Administrator shall not vote unless also serving as a Commissioner or representing a Commissioner pursuant to Ch. 1, § 2a. of this Title.
- c. Voting Commissioners may cast an aye or nay vote, abstain, or exercise a veto.
 - (1) Collectively, Commissioners shall reach a majority decision by considering the complete Application, the testimony of the Applicant, Commissioners and subject matter experts, and deliberating the merits of the matter at hand in consideration of:
 - (a) the purpose and policies stated within the Land Use Law, and
 - (b) applicable requirements within other titles of Tribal Law, Land Use Regulations adopted, Council Resolutions, Tribal Policy or applicable federal rules.
 - (2) Individually, Commissioners shall deliberate the matter at hand in context of compliance with applicable MPTN Land Use Regulations, or other applicable federal requirements, pertinent to the subject discipline they represent on the Commission. Commissioners may exercise a veto only when compliance with such is at issue.
- d. Absent a veto the motion shall carry upon a majority of those present (e.g., if 7 are present the motion passes only if 4 Commissioners approve, regardless of abstentions).
 - (1) Deadlocked Votes
 - (a) In the event of a tie vote, the motion shall be re-voted, and decided upon a simple majority (e.g. if 7 are present the motion would pass if 3 voted for, 2 against and 2 abstained).
 - (b) If the vote is still deadlocked, and all Commissioners are not present, the motion shall be tabled for a vote by all members, either at a meeting or electronically, and decided upon a simple majority.
 - (c) If the vote remains tied after these voting efforts are exhausted the motion will be deemed defeated.
 - (2) Veto Vote

In situations where a Commissioner exercises a veto vote the Administrator shall immediately table consideration of the application and move the meeting to executive session to discuss the relevant issue.

 - (i) The Commissioner exercising the veto shall specifically state the provision of regulation believed in non-compliance.
 - (ii) The Administrator will provide the Commission with a copy of the applicable provision to guide discussion.
 - (iii) If following the executive session the Commissioner remains committed to exercising the veto, the applicant shall be invited to present a remedy.
 - (iv) If the Commissioner's compliance concern cannot be remedied the Administrator shall inform the Applicant that his application has been denied, provide specific reference to the provision at issue, and offer an explanation of the applicable appeal procedures contain in 14 M.P.T.L ch10. Such notice must be followed in writing within 48-hours.
- e. Denied Permit Applications
 - (1) If a Permit Application is denied, the Applicant may:
 - (a) if making minor accommodations to the Application, request a Hearing for Commission reconsideration pursuant to 14 M.P.T.L. ch. 10;
 - (b) submit a new Application - an additional land use fee shall not be required for subsequent Applications which are substantially similar to a previously denied Application; or,

- (c) request the return of any balance of the Land Use Fee provided with the Application, pursuant to Ch. 3, §4e.
- (2) The Administrator shall, to the extent practicable, expedite the Commission review period for any new Application submitted in response to one previously denied.

§ 4. Electronic Polling

- a. The Administrator may move consideration of any matter at hand for electronic vote (polling by email).
- b. Any Commissioner may respond to an electronic poll by requesting that a meeting be convened to consider the matter, thus nullifying the electronic poll.
- c. If any Commissioner cast a dissenting vote, the electronic poll shall be nullified and a meeting convened to consider the matter.
- d. If any Commissioner approves conditionally, the current electronic poll shall be nullified and a new electronic poll distributed with the Commissioners condition.
- e. Once the Administrator receives affirmative votes from a majority of the Commissioners the matter will be deemed approved, provided that:
 - (1) a period of at least 24-Hours (during regular business days) had transpired, or
 - (2) all Commissioners who the Administrator would reasonably expect could have a concern with the subject matter, had voted.

§ 5. Special Sessions

- a. Executive Session
 - (1) When an executive session is called:
 - (a) the room shall be cleared of all except for Commissioners, the Administrative Assistant and, if present, the representative from the Office of Legal Counsel, and
 - (b) the recording shall be stopped.
 - (c) Subject Matter Experts may be subsequently invited back upon unanimous consent of the Commissioners.
 - (2) When the executive session is concluded and the regular meeting reconvenes, the recording shall be restarted and the Administrator shall summarize the general discussion of the executive session for the record.
 - (3) No official business is to be decided within an executive session.
- b. Enforcement Hearing
 - (1) Enforcement Hearings shall be conducted as a regular Commission meeting.
 - (2) A quorum need not be present to hear testimony from the person issued the Show Cause Order.
 - (a) Absent a quorum, the Commission shall take no further official action at the hearing except that,
 - (b) in the event that the person issued the Show Cause Order fails to appear there will be a presumptive conclusion that the alleged violation has occurred and the Administrator may issue a subsequent Compliance Order or Cease and Desist Order without further action by the Commission.

- (3) Following a hearing the Commission may issue an Enforcement Order to any Person who the Commission found to have violated any Permit term or condition. Such Orders may include penalties.
 - (4) A quorum must be present when the Commission decides to levy a penalty.
 - (5) In determining the amount of the penalty, the Commission may consider the following factors:
 - (a) the reasonable costs and expenses of the Commission in investigating, controlling, and abating such violations;
 - (b) penalties established within Land Use Regulation;
 - (c) the actual and potential impact or damages to the environment, or the general health, safety, and welfare of the Tribe;
 - (d) any measures taken to prevent or mitigate the violation;
 - (e) any prior violations or previous failure to comply with the Land Use Law, any Permit term or condition, tribal policy, Land Use Regulation, or Enforcement Order;
 - (f) the financial gain, if any, derived by the source as a result of operating out of compliance;
 - (g) the deterrence of future potential violations;
 - (h) whether the failure to comply was intentional, willful or knowing and not the result of an error; and,
 - (i) any other factor(s) that may be relevant to determining the amount of the penalty, provided that such factor(s) shall be set forth in the written notice of assessment of the penalty.
- c. Hearings for Reconsideration
- (1) A Person may request a Hearing before the Commission if:
 - (a) an Enforcement Order has commenced against them;
 - (b) a penalty has been levied upon them;
 - (c) the Commission denied a Permit, Variance, or a Certificate of Completion; or,
 - (d) they are seeking relief from a specific Permit condition.
 - (2) Hearings shall be conducted as specified within the MPTN Administrative Procedures Act (40 M.P.T.L.) with the Commission serving as the Agency and the Administrator serving as the Hearing Official.
 - (a) The Administrator shall decide whether a Formal or Informal Hearing is required.
 - (b) In general, an appeal of a Commission's decision on a Permit Application should be the Informal type of hearing, whereas an appeal of an Enforcement Action should be a Formal type of hearing.
 - (c) Regardless of the type of hearing specified, the hearing shall be recorded and minutes prepared as part of the official Commission record.
 - (3) In addition to a quorum, prior to taking any official action on an appeal, the Administrator will ensure participation of all Commissioners who were present when the original action was taken.
 - (4) A person may present new information, for the record, at the meeting which was not part of the record when the original action was taken.
 - (5) When reconsidering a vetoed permit application it shall be incumbent upon the Commissioner who vetoed the application to defend his reasons for doing so.
 - (a) Following completion of introductory business, the Administrator shall request that the Commissioner who vetoed the application reiterate his reason for doing so and reference the specific provision of law or regulation he believed to be at issue.
 - (b) The appellant may then state his reason for pursuing his appeal and present arguments supporting his position.

- (c) Prior to final consideration the Administrator shall ensure that the Commissioner who originally cast the veto has a final opportunity to express his opinion.
- (6) Commissioners may not exercise a veto during an appeal.
- d. Variance Consideration
 - (1) A Person may request a hearing for a variance from a specific provision of:
 - (a) a Code or Standard, or
 - (b) a Regulation, only in cases where the Regulation itself specifies a procedure for Commission issued variances.
 - (2) A variance request shall be considered as a regular business item at a Commission meeting.
 - (3) In addition to a quorum, prior to taking any official action on a variance request, the Administrator will ensure participation of the Commissioner representing the program discipline most affected by the variance request.
 - (4) When considering a variance Commissioners are reminded that a Regulation may contain specific variance procedures which must be followed.
 - (5) The Commission may grant the variance if the Applicant provides sufficient evidence that:
 - (a) the granting of the variance will not undermine the purposes of the Land Use Law;
 - (b) the proposed variance will not have the potential to adversely affect the environment or, the potential to affect the general health, safety and welfare of the Tribe, it's employees and guests;
 - (c) denying the variance will cause the Applicant to suffer hardship out of proportion to the benefit intended by the Tribal Land Use Regulation; and,
 - (d) the Tribal Land Use Regulation from which the variance is sought can be properly mitigated or the effect of the variance is neutral.
 - (6) The Commission may condition its approval of the variance by stipulating alternative equivalents, or alternative compliance methods than those proposed by the applicant.

CHAPTER 7. PERMIT CONDITIONS

§ 1. Program Specific Permits and Notifications

- a. The issuance of a Land Use Permit does not relieve any Person from complying with any other applicable provisions of Tribal or applicable federal law or from any provision, ordinance, or regulation of the Mashantucket Pequot Tribal Nation that may require approval, license, or permit to accomplish, engage in, carry on, or maintain a particular business, enterprise, occupation, transaction, or use.
- b. Commissioners shall endeavor to apprise the Permittee of all anticipated post permitting requirements pertinent to their subject discipline.
 - (1) Such typical requirements shall be codified within applicable Land Use Regulation or otherwise available through direct reference to publically available tribal or federal policy, regulation or law.
 - (2) Requirements not specifically noted during the Application Review Period shall be communicated to the Permittee either in person during a Commission meeting or in writing upon permit issuance. In cases where such requirements were not anticipated, the Applicant shall be notified in writing as soon as the Commissioner becomes aware that such requirements are applicable.

- (3) Common requirements may assume to have been communicated to the Applicant if summarized, with reference to the specific provision, within a Land Use Commission fact sheet available to the public via the internet.
- c. The Applicant shall not be excused for non-compliance with any requirement which the Commission failed to communicate; however, the Commission shall consider such fact during any subsequent enforcement proceeding where penalty assessment is considered.

§ 2. Monitoring by Commissioners

- a. It is the responsibility of each Commissioner to monitor the progress of permitted Land Use Activities to assess compliance with those elements of a Land Use Regulation specific to the subject discipline they represent on the Commission.
 - (1) Commissioners should utilize members of their staff and/or coordinate with other Commissioners to facilitate their duties in this regard.
 - (2) Commissioners should attempt to resolve minor issues or concerns directly with the Project Manager for the Activity.
 - (3) Commissioners, who fail to attain satisfactory resolution of any issues or concerns, may request intervention by the Administrator.
 - (4) If the Administrator fails to reach an accommodation acceptable to the Commissioner, the Administrator shall:
 - (a) add the issue to the agenda of next Commission meeting as a topic for discussion and possible consideration for enforcement action;
 - (b) issue the appropriate person a Show Cause Order, if the Administrator determines that reasonable grounds exist to find that there is a violation; or
 - (c) issue a Cease and Desist Order, if the Administrator determines that reasonable grounds exist to find that there is a violation and substantial harm to the environment, the general health, safety, and welfare of the Tribe is likely to occur without the instigation or cessation of such activity.
- b. Commissioners, and their authorized representatives, have the authority, at all reasonable times, to enter a Facility, or upon any property associated with a permitted activity. This inspection authority is detailed within 14 M.P.T.L Ch. 9 § 1.
 - (1) A Commissioner who is refused, or unreasonably delayed, access shall notify the Administrator.
 - (2) The Administrator shall make a reasonable effort to resolve the situation with the Permittee prior to commencing enforcement action.
- c. Commissioners who suspect a permitted activity to be in non-compliance with any Permit condition or tribal or federal law or regulation shall have the responsibility to document those conditions which lead them to suspect that a violation has occurred. All such supporting documentation must be provided to the Administrator when making a request to initiate enforcement action.
- d. Commissioners shall ensure that all outstanding issues related to their subject discipline are addressed prior to the issuance of a final Certificate of Completion.
 - (1) It is incumbent on each Commissioner to be aware of the status of all activities relevant to the subject discipline they represent on the Commission.
 - (2) Commissioners are cautioned that the issuance of a final Certificate of Completion is an acknowledgement that, to the best of their knowledge, all outstanding issues related to the permitted activity have been addressed to their satisfaction.

- (3) Commissioners are cautioned of the difficulty of pursuing subsequent enforcement action, to address issues which may have been informally agreed to between them and the Applicant, after issuance of the final Certificate of Completion.

§ 3. Plan Modifications and Deferred Submittals

a. Land Use Activities shall be completed in accordance with plans, specifications and submittals approved by the Commission. Changes, including deferred submittals, made after a Permit is issued require the Commission's review and approval of the proposed changes, before the work proceeds.

b. The Permittee shall supply copies of all deferred submittals to the Building Official. Upon request, the Permittee shall also provide a copy to any Commissioner whose discipline, as represented on the Commission, meets the subject matter contained within the submittal.

- (1) The Applicant shall submit all deferred submittals to the Design Professional in Responsible Charge who shall review them prior to being forwarded to the Building Official, et al.
- (2) The Design Professional in Responsible Charge shall provide a notation on each submittal indicating that the documents have been reviewed and have been found to be in general conformance to the design of the building.
- (3) Deferred submittal items shall not be installed until the design and submittal documents have been approved by the Building Official, et al.

c. Minor changes to the approved plans may be approved administratively by the Building Official and any other Commissioner whose discipline, as represented on the Commission, meets the subject matter of the modification.

- (1) Minor changes do not include changes in the size, location, change of use, or drawings with multiple changes that will require a substantial plan review.
- (2) The reviewing Commissioner may require submittal of a letter, signed and Stamped by the Design Professional in Responsible Charge, detailing the change required.
- (3) The reviewing Commissioner is to consider the minor change in context of whether it relates to other Commissioners' program disciplines and seek concurrence with all such Commissioners who may have a related interest in review of the change.
- (4) If the reviewing Commissioners cannot resolve their concerns with the Permittee or otherwise desires involvement of the Commission they may defer such review to the Commission.
 - (a) A quorum is not required to review minor changes to a permitted activity provided that the Administrator ensures that there is participation of all Commissioners who would reasonably be expected to have concern with the changes proposed.
 - (b) When reviewing changes the Commissioners present shall determine whether those changes require a permit modification as provided in 14 M.P.T.L. Ch. 6, § 3.
- (5) Significant and material changes require, as stipulated within 14 M.P.T.L. Ch. 6, § 3, a formal permit modification and consideration by the entire Commission.

§ 4. Notification of Violations

Commissioners shall notify the Permittee and Administrator in writing within twenty-four (24) hours of becoming aware of any Permit violation, failed sample or test, or any activity which is or may become a violation of the Permit or any Land Use Regulation.

§ 5. Notification of an Emergency Situation

In the event that a Commissioner becomes aware that a permitted activity has caused, or is likely to cause, an emergency situation where there is an imminent threat to life, health, property, environment, or essential public service, the Commissioner shall immediately contact MPTN Emergency Services, request that site personnel cease all activity, and notify the Administrator.

§ 6. Bonding

The Commission may require the posting of a performance or maintenance bond after consulting with any relevant MPTN departments or teams, in an amount and of duration satisfactory to the Commission to assure and guarantee the completion of site improvements including, but not limited to, grading, regrading, drainage, pollution prevention, site remediation, environmental controls, erosion control, lighting, screening, planting, building or safety improvements and other reasonable conditions indicated on a site plan which will assure compliance with this Law, or applicable Tribal Program regulations.

a. A performance or payment bond shall be delivered to the Mashantucket Pequot Tribal Nation, in the form of a certified check, pledge of a bank book, fully insured by an agency of the United States government, with irrevocable power of attorney and acknowledged by the bank in which the funds are deposited, or a corporate surety bond, at the discretion of the Commission, shall be posted by the Applicant, to insure the completion of required improvements and utilities in the event the Applicant shall fail to install same within five years from the date of the bond. The term of the performance bond may be extended by the Commission upon approval of a petition from the Applicant to the Commission and subject to agreement of such extension by the surety company.

b. The Applicant may apply to the Commission for a reduction in bond when 50% of the Total Cost of the Project for the project have been completed and, after at least 180 days from any prior reduction, may apply to the Commission for further reduction in the bond when 75% of the Total Cost of the Project for the project has been completed. Requests for such reduction shall be made in writing to the Commission with a fully executed copy of the Commission's bond form attached thereto.

c. Prior to the release of the performance bond, the Applicant shall present a maintenance bond equal to at least 10% of the initial performance bond. Such bond shall be for a period of one year and shall guarantee the improvements installed.

CHAPTER 8. PENALTIES

a. Except as provided within paragraphs b. and c. of this Section, in connection with an Enforcement Order, the Commission shall have the authority to issue penalties to any Person, Owner or Permittee who, after notice and hearing, the Commission finds to have violated any Permit term or condition, Land Use Regulation, or Enforcement Order.

b. Penalties for violations of a Land Use Regulation that contain specific penalty assessment procedures shall be assessed as specified within that Regulation.

c. Pursuant to 14 M.P.T.L. Ch. 9, § 3a., the following schedule of common penalties is established for violations of L.U.R. Title 2, the Building Code, and L.U.R. Title 3, the Fire Prevention Code.

- (1) If, upon inspection or investigation, the Building Official or Fire Marshal believes that a Person has violated a requirement of Title 2 or Title 3 of L.U.R., he shall with reasonable promptness issue a citation to the Person.
- (2) The citation may include the assessment of penalties as stipulated below:
 - (a) \$100 for commencing work without an approved permit;
 - (b) \$50 for failing to provide timely notice for inspection;
 - (c) \$50 for a repeated failed inspection;
 - (d) up to \$500 for blockage of an emergency egress;
 - (e) up to \$500 for a unauthorized storage within an egress corridor
 - (f) up to \$500 for failure to provide proof that a citation has been abated within the time specified on such citation;

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|----------------------------|---|
| 20-Jun-14 | LU-14-079 | Codified as 2 L.U.R. pursuant to TCR052914-04 of 10 |
| 23-Nov-16 | LU-17-501 | Revised with Updated Model Code References |
| 17-Feb-17 | LU-17-504 | Revised adding MPTN Supplement |
| 01-Oct-18 | LU-18-503 | Revised with Updated Model Code References |
| 01-Aug-19 | LU-19-506 | Revised MPTN Supplement Consistent with Model Code Changers |
| 03-Feb-23 | LU-23-502 | Revised with Updated Model Code References |
| 29-Jun-23 | LU-23-503 | Revised with Updated Model Code previously deferred, adopts ICC IEBC, & Updates MPTN Supplement Consistent with Model Code Changers |

TITLE 2. BUILDING CODE

CHAPTER 1. GENERAL

§ 1. Purpose and Scope

a. The purpose of this code is to establish the minimum requirements necessary to safeguard public health, safety and general welfare.

b. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures in Mashantucket.

§ 2. Applicability

a. General

- (1) This Title, to be known as the Mashantucket Building Code, has been adopted by the Mashantucket Pequot Land Use Commission for regulating and governing the conditions and maintenance of all property, buildings and structures, by providing the standards for facilities, supplied utilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use, and the condemnation of buildings and structures unfit for human occupancy and use.
- (2) This Mashantucket Building Code shall apply to construction of new buildings, alterations or additions to existing buildings, changes in use, and demolition activities.
- (3) The provisions of this code shall not be deemed to nullify any provisions of tribal or federal law.
- (4) Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.
- (5) In the event that any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.
- (6) The provisions of this code shall not be deemed in any way to waive the sovereign immunity of the Mashantucket Pequot Tribal Nation.

b. Existing structures

- (1) The legal occupancy of any structure, existing on the date of adoption of this code or existing on the date of adoption of subsequent model code revisions, shall be permitted to continue without change, except as is specifically covered in this Title or the Fire Prevention Code (3 L.U.R.), or as is deemed necessary by the Building Official, following inspection pursuant to 14 M.P.T.L. ch. 9, §1b(2), for the general safety and welfare of the occupants and the public.
- (2) Any deficiency discovered must be rendered no less conforming to the provisions of the Code that was enforced at the time the existing building or structure was originally constructed.

c. Unsafe Structures and Equipment

- (1) Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe

condition. Unsafe structures shall be taken down and removed or made safe, as the Land Use Commission deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.

- (2) The Building Official shall cause a report to be filed with the Land Use Commission on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.
- (3) If an unsafe condition is found, the Land Use Commission shall serve the owner, agent or person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe structure to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the Building Official acceptance or rejection of the terms of the order.
- (4) The structure or equipment determined to be unsafe is permitted to be restored to a safe condition. To the extent that repairs, alterations or additions are made or a change of occupancy occurs during the restoration of the structure, such repairs, alterations, additions or change of occupancy shall comply with the requirements of this title.

d. Approved materials and equipment

- (1) Materials, equipment and devices approved by the Building Official shall be constructed and installed in accordance with such approval.
- (2) Used materials, equipment and devices shall not be reused unless approved by the Building Official.

e. Alternative materials, design and methods of construction and equipment.

- (1) The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the Building Official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.
- (2) Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports and/or testing from approved sources.

f. Modifications

Pursuant to 14 M.P.T.L. Ch. 8, wherever there are practical difficulties involved in carrying out the provisions of this code, the MPTN Land Use Commission shall have the authority to grant modifications for individual cases, provided the Commission shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, accessibility, life and fire safety or structural requirements.

g. Permits Required

(1) Land Use Permit

Any person who requires a permit pursuant to this Title must first obtain a Permit from the MPTN Land Use Commission as provided within the MPTN Land Use Law (14 M.P.T.L.).

(2) Trade Permits

(a) Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, or demolish a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, must be permitted to do so by the Building Official.

(b) The requirements specific to Trade Permits are detailed within Chapter 2 of this Title.

h. Inspections Required

All work must be inspected by Building Code Enforcement as specified within Chapter 3 of this Title.

§ 3. Administration

a. Building Code Enforcement (BCE)

(1) BCE is the government program, represented on the MPTN Land Use Commission, responsible, unless otherwise noted, for ensuring proper administration and enforcement of this code.

(2) Land Use Commission Administration shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period specified by the MPTN record retention policy.

b. Building Official

(1) The Building Official shall be the person appointed, as specified within 1 L.U.R. ch. 1, §3a(4), to represent BCE on the Land Use Commission. .

(2) Unless otherwise specified within this title, the Building Official shall have the authority and responsibility to interpret and enforce the provisions of this Code as specified within MPTN Land Use Law (14 M.P.T.L.).

(3) Require Testing

(a) Whenever there is insufficient evidence of compliance with the provisions of this Code, or evidence that a material or method does not conform to the requirements of this Code, or in order to substantiate claims for alternative materials or methods, the Building Official shall have the authority to require tests as evidence of compliance to be made at the expense of the owner. Test methods shall be as specified in this Code or by other recognized test standards. In the absence of recognized and accepted test methods, the Building Official shall approve the testing procedures.

(b) Tests shall be performed by an approved agency. Reports of such tests shall be retained by the Building Official for the period specified by the MPTN record retention policy.

c. Building Inspectors

BCE, from time to time, may employ or contract other building inspectors, plan examiners or other technical contractors to assist the Building Official. Such individuals shall have powers as delegated by the Regulatory Affairs Officer.

d. Liability

The Building Official or any other Commissioner, inspector, or code official designated within this title, while acting in good faith and without malice in the discharge of the duties required by this Code or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage occurring to persons or property as a

result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representative of MPTN until the final termination of the proceedings.

CHAPTER 2. TRADE PERMITS

§ 1. Permits Required

a. It is the responsibility of the owner or agent granted a Land Use Permit to ensure that each contractor, prior to commencing work on his permitted activity, applies for and is issued a Trade Permit. Failure of a Permittee's contractors to obtain the applicable Trade Permits prior to commencing work may result in Enforcement Action against the Permittee by the MPTN Land Use Commission.

b. Commencement of work without a properly issued Trade Permit will result in the issuance of a Citation with penalty pursuant to 1 L.U.R. Ch 8, as authorized by 14 M.P.T.L. Ch. 9, §2a.

§ 2. Types of Permits

a. Building Permit

- (1) New structures
- (2) Additions - building expansion in any direction adding square footage to the exterior of the building or by adding a story.
- (3) Alterations - remodeling and/or demolition of existing space(s)
- (4) Change of use or occupancy

b. Civil Permit

- (1) Roadways and bridges
- (2) Retaining walls greater than three (3) feet in height
- (3) General site work: excavation, grading, utilities, septic system, drainage, storm water conveyance, or concrete not associated with a building

c. Demolition Permit

- (1) Removal of a building or structure, or portion thereof
- (2) Removal and capping of plumbing, mechanical, septic, or electrical appurtenances
- (3) Removal of structural components of a building

d. Electrical Permit

(1) Line Voltage

An electrical line voltage permit is required to erect, install, alter, repair, relocate, replace or add to an electrical system between 50 and 1,000 volts.

(2) Low Voltage

- (a) An electrical low voltage permit is required for all low voltage, limited energy (less than 50 volts), data, and communications wiring as outlined in the NEC articles 720 thru 840.
- (b) Fire alarm system installations, NFPA 72.

e. Mechanical Permit

- (1) Heating Ventilation Air Conditioning (HVAC)
- (2) Process piping
- (3) Gas piping for human comfort
- (4) Low pressure steam and hydronic heating & cooling process piping

f. Plumbing Permit

- (1) Plumbing system work inside the building or within the property line for potable water supply and distribution piping
- (2) All fixtures and traps, all drainage and vent pipes and all building drains

g. Special Event

Any temporary event or gathering, including but not limited to trade shows, fairs, or other types of festivals or recreational events, occurring within a facility or upon grounds generally accessible to the public, and which involve one or more of the following activities: erection of a tent, stage, bandshell, trailer, portable building, grandstand, bleachers or placement of portable toilets.

h. Fire Suppression Systems

Any fire suppression system installations, above ground and underground storage tanks, special suppression systems such as kitchen hood suppressions systems (e.g. intergen. ansul, piranha, etc.)

§ 3. Activities not Requiring Trade Permits

a. Exemptions from trade permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of this Code.

b. Building:

- (1) one-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 200 square feet;
- (2) fences, other than swimming pool barriers, up to but not exceeding 7 feet height;
- (3) retaining walls that are not over three (3) feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids;
- (4) refinishing of residential driveways;
- (5) painting, papering, tiling, carpeting and similar finish work;
- (6) temporary theater stage sets and scenery utilizing rated anchor points previously inspected by the Building Official;
- (7) prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches deep, do not exceed 5,000 gallons and are installed entirely above ground;
- (8) swings and other playground equipment accessory to detached one- and two-family dwellings;
- (9) window awnings supported by an exterior wall that do not project more than 54 inches from the exterior wall and do not require additional support of Groups R-3 and U occupancies; and
- (10) nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches in height and not containing any electrical, plumbing or mechanical equipment.

c. Electrical

Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

- d. Gas
 - (1) portable heating appliance; and
 - (2) replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.
- e. Mechanical:
 - (1) portable heating appliance;
 - (2) portable ventilation equipment;
 - (3) portable cooling unit;
 - (4) portable evaporative cooler; and
 - (5) self-contained refrigeration system containing ten (10) pounds or less of refrigerant and actuated by motors of one (1) horsepower or less.
- f. Plumbing
 - (1) The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
 - (2) The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.
- g. Emergency Repairs

Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day.
- h. General Repairs

Application or notice to the Building Official is not required for ordinary repairs. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sprinkler component, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.
- i. Electrical Utilities

A permit shall not be required for the installation, alteration or repair of transmission, distribution or metering or other related equipment that is installed and will be under control of Public Electrical Utility. This exemption is specific to Trade Permits and does not extend to the need to obtain a permit from the Land Use Commission for new facilities.

§ 4. Trade Permit Application

- a. Work shall not commence until the tradesperson receives the approved Trade Permit; and
 - (1) posts a color copy of the permit in a conspicuous place at the work site; or
 - (2) if posting the permit is impossible, the tradesperson shall make the permit available at the worksite at all times.

b. Applications for Trade Permits shall be submitted electronically utilizing the form provided to the Land Use Applicant at the time of approval. Applications must include, at minimum:

- (1) the type of Trade Permit (see § 2 of this Chapter);
- (2) the Land Use Permit number and the exact project title as listed on the Land Use Permit;
- (3) a complete description of the tasks;
- (4) the scheduled start date and the date of anticipated completion;
- (5) name, address and contact information for the tradesperson's company;
- (6) contact information for at least one individual who will be on-site during all activities; and
- (7) if applicable, the contact information and license information for the licensed tradesman.
 - (a) Tradesmen, who are typically required to be licensed by surrounding jurisdictions, must provide proof of such licensure.
 - (b) Acceptable Licensing jurisdictions are at the discretion of the Building Official.

c. Incomplete Applications will be rejected.

d. Applications involving ground disturbance shall not be issued without a "Call Before You Dig" number.

e. Applications must be submitted two full business days prior to the scheduled start date of work.

f. Fee – no fee will be charged for Applications submitted in conformance with these requirements.

§ 5. Suspension of Trade Permit (Stop Work Order)

a. The Building Official may suspend a previously issued Trade Permit when work on any Land Use Activity is being prosecuted contrary to the provisions of this Code or in an unsafe and dangerous manner. Pursuant to chapter 1, §2c(2), all work authorized by the Trade Permit shall be immediately stopped upon notice that the permit has been suspended.

b. The Building Official shall have the obligation to notify the affected tradesperson and applicable Land Use Permit holder of the reasons for suspension of the Trade Permit and shall state the conditions under which the permit will be reinstated.

c. The Building Official may authorize work under a suspended permit provided that such work is directed to abate the violation or unsafe condition.

d. Appeal. Any person identified upon the suspended Trade Permit Application, or listed as the Applicant or Site Contact on the applicable Land Use Permit, may request a hearing with the MPTN Land Use Commission by following the procedures specified within 14 M.P.T.L. Ch. 10.

CHAPTER 3. INSPECTIONS

§ 1. General

a. Before commencing the construction, the owner or authorized agent shall contact the Building Official to schedule a meeting to discuss requirements, approved plans and related matters.

- (1) All key parties involved in the construction process may be required to attend this meeting.
- (2) Failure to schedule a pre-construction meeting before commencing construction may result in fines pursuant to 1 L.U.R., ch. 8.

b. Certain types of construction work require Special Inspections in addition to those performed by the Building Official. These Special Inspections may be required to be periodic or continuous as deemed necessary by the Building Official and/or the Design Professional in Responsible Charge. The owner or authorized agent is required to provide specially qualified independent inspector(s) for such purpose during construction. Please refer to § 4 of this Chapter for further details regarding Special Inspections.

- (1) The owner or authorized agent is required to provide specially qualified independent inspector(s) to complete all required Special Inspections during construction.
 - (a) The independent special inspector shall be approved by and report directly to the Building Official.
 - (b) Unless the project is entirely funded by a tribal entity, the owner shall bear all costs associated with required Special Inspections.
- (2) If required, the Design Professional in Responsible Charge shall provide a Statement of Special Inspections prior to commencing any permitted work.

c. Work shall not be done beyond the point indicated in each successive inspection, as outlined within § 3 of this chapter, without first passing inspection by the Building Official. Upon notification the Building Official will inspect the work completed and either pass the work as satisfactory, or notify the permit holder of the code deficiencies noted. Any portion of the work that does not comply shall be corrected and not covered or concealed until the Building Official has issued a passing inspection.

§ 2. Inspection Requests

a. It shall be the duty of the Trade Permit holder or their agent to notify the Building Official that work is ready for inspection. The person requesting an inspection is required to provide access to and means for inspection of such work.

b. All inspections conducted by BCE require a minimum of 24 hours advance notice.

- (1) An Inspection Request form (IR) shall be submitted electronically (via email) utilizing the form provided with the approved Trade Permit.
- (2) Inspections shall not be accommodated when IRs are not received at least twenty-four (24) hours in advance of the requested inspection. Such requests will likely be delayed until the following business day.

c. Tradesperson failing to make timely requests for the appropriate inspections may be issued a Citation with penalty pursuant to 1 L.U.R. Ch. 8 (as authorized by 14 M.P.T.L. Ch. 9, §2a).

§ 3. Building Code Enforcement Inspection

a. Footings/Foundations

- (1) when excavation is complete and forms are erected. All reinforcing steel, where required, must be in place and anchored. This inspection must be made prior to placing concrete.
- (2) reinforcing steel inspections for wall placements exceeding four feet in height must be scheduled when at least one side of the wall is still open and visible for inspection.

b. Backfill Inspections

- (1) all required plumbing or electrical tests and inspections have passed and/or prior to placing any fill; and,
- (2) when damp proofing/waterproofing has been applied to foundation walls, foundation drains are in place and prior to any fill placement.

c. Concrete Placement Inspection

- (1) when all subgrade, reinforcing steel and formwork inspection have been completed and approved, and
- (2) after the concrete supplier has been scheduled.

d. Masonry

- (1) when block is completed to the level established by high or low lift grouting techniques, and prior to grout placement:
- (2) when piers are complete to the level of established grade and any brick or other veneer is also in place; and
- (3) when all reinforcing, including lateral support of intersecting walls is complete and visible.

e. Building

(1) Floor Joist Inspection

when load-bearing walls to the first floor sill height have been erected, beams and floor-joists have been installed, and grading within the perimeter walls has been completed. Sub-flooring shall not be installed before this inspection has been approved.

(2) Framing

when the roof, all framing, firestopping, blocking and bracing is in place, and the sub-flooring has been installed. Do not install insulation before the framing inspection is approved. The building should be "weathered in" including windows, doors, and roof shingles for this inspection.

(3) Insulation

when all required insulation has been installed after all rough-in and framing inspections have been approved. In the event that the contractor intends to use blown-in insulation in the ceilings, that portion of this inspection may be delayed until and during the final inspection.

(4) Breeching or Fireplace

(a) Combustible clearances

before the interior is insulated and wall enclosed, but may be after the fireplace is finished. This includes all types of fireplaces: masonry, prefabricated and gas ventless; and,

(b) Masonry fireplace construction

when the first flue past the fireplace throat is set. Approval is required prior to proceeding further.

f. Plumbing

(1) Water and Sewer Service Connections

when all water and sewer lines are installed from the water and sewer mains (or wells and septic tanks) to the structure. Trench must be open and all lines accessible to the inspector. Water line testing shall also be conducted at this time (See 9 L.U.R. Ch. 2.2, §6).

(2) Rough-in Inspection

when all interior piping (water and sewer) has been installed and tested, and prior to concealment.

(3) Final Inspection

when all plumbing work is complete and all appliances involving water and/or sewer connections have been installed submit an IR for inspection.

g. Mechanical

(1) Rough-in Inspection

when the installation of all equipment, duct work, gas lines, fuel storage tanks, etc. is complete, and prior to covering and concealment.

(2) Final Inspection

when all heating, ventilating and air conditioning installations have been completed and tested.

h. Electrical

(1) Under-slab Inspection

after installation of conduit and conductors in trenches or in slab base material and prior to backfilling trench or covering with slab base material.

(2) Rough-in Inspection

- (a) when all interior wiring and electrical equipment has been installed, but prior to covering or concealment and prior to installation of any insulation.
- (b) all electrical contractors will have the option to have the electrical meter release inspection for one and two family residences performed on the same day as the electrical rough-in inspection. The following requirements must be in place at this release/rough-in electrical inspection:
 - (i) the grounds and neutrals in the electrical panel must be terminated;
 - (ii) the meter base must be mounted;
 - (iii) the service cable must be terminated;
 - (iv) the panel cover shall be installed with two screws only, and the screws shall be only finger tight; and
- (c) If all of the above-listed items are not completed at the time of the electrical rough-in inspection, the rough-in may be approved but the meter will not be released until the electrical trim-out has been completed and inspected.

(3) Final Inspection

when all electrical work is complete and power is turned on.

i. Gas

(1) Rough-in Inspection

when installation of all lines is completed, but before concealment of any lines and fittings. Gas line testing shall also be conducted at this time (See 9 L.U.R. Ch. 4, §5f.).

(2) Final inspection

when hookup of all gas appliances has been made. Gas service will not be released to the utility company for connection until these inspections are approved. If service is interrupted, new pressure tests and inspections may be required prior to release to the utility company.

j. Fireproofing Inspection

when fireproofing of all structural members is complete and after the fireproofing has cured to the point that an adhesion/cohesion test can be conducted.

k. Firestop Inspection

when firestop installed, listed assemblies have been provided to BCE, and each firestop assembly has been properly labeled.

l. Final Inspection

- (1) when the building has been completed and ready for occupancy. This inspection will not be made until all required electrical, plumbing, and mechanical final inspections have been made and the work approved.
- (2) a Certificate of Completion (either a Certificate of Use or Occupancy) may only be issued after completion of this inspection. The structure may not be used or occupied in whole or part until issuance of a Certificate of Completion (either final or temporary).

§ 4. Special Inspection

a. In addition to the inspections required by §3 of this chapter, the Building Official may require the owner to employ a special inspector during construction of specific types of work as described in this code.

b. Statement of Special Inspection

- (1) In accordance with the Special Inspection and Structural Testing requirements of the Building Code, when required by the Building Official, a Statement of Special Inspection shall be submitted as a condition of the activity's Land Use Permit.
- (2) The Statement of Special Inspection shall include:
 - (a) a schedule of Special Inspections required;
 - (b) the name of the Special Inspection Coordinator; and,
 - (c) the approved inspector(s)/agencies to be retained for conducting the inspections and tests.
- (3) The Statement of Special Inspection must include the following disciplines:
 - (a) architectural;
 - (b) structural;
 - (c) mechanical/electrical/plumbing; and,
 - (d) any other as required.

c. Coordination of Records and Reporting

- (1) A Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Design Professional in Responsible Charge.
 - (a) Reports shall indicate that work inspected was or was not completed in conformance to approved construction documents.
 - (b) Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction.
 - (c) If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Design Professional in Responsible Charge prior to the completion of that phase of the work.
 - (d) The Special Inspection program does not relieve the Contractor of his or her responsibilities.
- (2) Interim reports

The Special Inspection Coordinator shall submit interim reports to the Building Official and the Design Professional in Responsible Charge.

(3) Final Report

A final report documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Completion.

§ 5. Additional Inspection

The following additional inspections shall be conducted, at owner's expense, by approved third party design professionals. Unless otherwise determined by the Building Official, these additional inspections are not required for buildings of Type V construction.

a. Sheeting and shoring

All sheeting and shoring shall be designed by a licensed structural engineer approved by the Building Official and submitted to the Structural Engineer of Record (SER) for review and comment. The Design Professional in Responsible Charge shall develop a comprehensive inspection list based on the specific needs of the project design, subject to approval by the SER. The inspection procedure shall be submitted to the Building Official prior to commencement of construction.

b. Underpinning

All underpinning shall be designed by a licensed structural engineer and be submitted to the SER for review and approval. The Design Professional in Responsible Charge shall develop a comprehensive inspection list based on the specific needs of the design, subject to approval by the SER. The inspection procedure shall be submitted to the Building Official prior to the commencement of construction.

c. Architectural Inspections

The Inspecting Architect shall:

- (1) provide inspections as needed to insure compliance with applicable code requirements such as:
 - (a) means of egress;
 - (b) construction type & fire-resistance rated construction;
 - (c) architectural close-in inspections and authorization of work to proceed;
 - (d) interior environments and energy conservation;
 - (e) interior finish;
 - (f) accessibility;
 - (g) sound transmission control; and
 - (h) other provisions of the code that will deem the building in conformance with this Building Code; and,
- (2) submit a signed and sealed inspection report to the Building Official within five working days after the completion of the inspection;
- (3) ensure that all required approvals are obtained prior to approval of inspected item(s) and continuation of construction; and
- (4) upon completion of the work, provide a professional opinion that to the best of their knowledge, information and belief, the work has been constructed in accordance with the approved contract documents and the Building Code.

d. Mechanical Inspections

- (1) The Mechanical Engineer of Record shall provide periodic inspections for compliance with the International Mechanical Code, applicable NFPA standards and conformity with the approved construction documents before the concealment of any mechanical components as described, but not limited to:
 - (a) testing, insulation, support and clean out location for grease duct systems;
 - (b) pressure testing of ductwork and various piping systems;
 - (c) piping and duct supports and insulation;
 - (d) fuel tank pressure testing and verification;
 - (e) inspection, testing and qualification for seismic resistance as per IBC § 1705.13 in Seismic Design Category C;
 - (f) appliance location, anchorage and supports;
 - (g) proper protection of penetrations of fire rated building components;
 - (h) appropriate protection of fire rated shaft penetrations;
 - (i) commercial and domestic dryer exhaust ducts and makeup air for dryer systems consistent with the manufacturers' installation instructions and the IMC;
 - (j) emergency Standby Generators shall be installed and inspected per the IBC and NFPA 110;
 - (k) hazardous exhaust systems shall be installed and inspected per the IMC; and
 - (l) compliance with the International Energy Conservation Code regarding mechanical systems efficiencies, insulation, economizers and controls.
- (2) Upon completion of the mechanical work within the building, the Mechanical Engineer of Record shall provide BCE a certified document stating that to the best of their knowledge and in their opinion mechanical systems have been completed in accordance with the approved contract documents and the Building Code.

e. Geotechnical Investigations

- (1) The Geotechnical Engineer of Record shall:
 - (a) prepare and issue geotechnical report of subsoil evaluation;
 - (b) prepare design criteria for foundations and foundation systems; and
 - (c) revise geotechnical recommendations if site soil or groundwater conditions materially differ from conditions indicated on the approved geotechnical report and coordinate changes with the Design Professional in Responsible Charge for the structural design of foundations, deep foundations or other types of foundation systems.
- (2) Upon completion of the geotechnical phase of the building, the Geotechnical Engineer of Record shall provide BCE a certified document stating that to the best of their knowledge and in their opinion the construction of the soils and/or foundation systems (as appropriate) has been completed in accordance with the approved contract documents and the Building Code.

CHAPTER 4. CODES ADOPTED BY REFERENCE

As authorized by 14 M.P.T.L. Ch. 4, the MPTN Land Use Commission has adopted the model codes specified within this chapter, by reference; except as may be amended, altered or deleted within Chapter 5 of this Title, the MPTN Supplement, or as may be superseded in the future by amendment to this Chapter.

§ 1. International Code Council

- a. 2021 International Building Code
- b. 2021 International Residential Code
- c. 2021 International Property Maintenance Code
- d. 2021 International Energy Conservation Code
- e. 2021 International Mechanical Code
- f. 2021 International Plumbing Code
- g. 2021 International Existing Building Code
- h. 2021 International Swimming Pool and Spa Code
- i. 2017 ANSI A117.1 Accessible and Usable Buildings and Facilities

§ 2. National Fire Protection Association

2020 National Electric Code, a.k.a. NFPA 70

§ 3. Equivalency

a. In general, provisions within the 2022 Connecticut State Building Codes, only to the extent that they add, amend or otherwise specify changes to the model code provisions adopted within this title, will be considered acceptable as an alternative or an equivalent method of compliance provided such alternatives are acceptable upon approval by the Building Official and Fire Marshal.

b. When considering whether or not to raise an objection, the Building Official and Fire Marshal shall ensure compliance with the intent of the following:

- (1) Section 14 of the Tribal-State Compact that requires tribal ordinances and regulations, governing health and safety standards applicable to gaming facilities, be no less rigorous than standards generally imposed by the laws and regulations of the State relating to public facilities with regard to building, sanitary, and health standards and fire safety; and,
- (2) Tribal Council Resolution TCT102704-02 of 03 that requires the Land Use Commission, with respect to home construction, to apply regulatory interpretation that is consistent with the interpretation of similar building code provisions in New London County, Connecticut.

CHAPTER 5. MPTN SUPPLEMENT

§ 1. General

a. Referenced Model Code Annotations - As used in this chapter, a referenced section or subsection preceded by bracketed annotations have the following meaning:

- (1) [Add] - indicates the addition to the adopted referenced standard.
- (2) [Amd] - indicates the substitution in the adopted referenced standard.
- (3) [Del] - indicates the deletion of this section or subsection from the adopted referenced standard.

b. Referenced Code and Standards.

- (1) Any reference to a model code adopted within chapter 4, shall mean as amended by this chapter.
- (2) The codes and standards referenced within the body of the model codes adopted shall be considered part of the code requirements to the prescribed extent of each such reference, except that:
 - (a) references to the International Fire Code shall be considered to be references to the current MPTN Fire Prevention Code (3 L.U.R.);
 - (b) references to the International Fuel Gas Code shall be considered references to requirements of NFPA 54, National Fuel Gas Code, NFPA 56, Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems and NFPA 58, Liquefied Petroleum Gas Code;
 - (c) references to NFPA standards shall be considered references to those versions specified within the MPTN Fire Prevention Code (3 LUR, chapters 4 and 5) or if no such reference is provided therein then the referenced version in effect on January 1, 2022 shall govern.

(3) Applicability

- (a) Chapter 4 identifies those model codes which have been adopted by reference as part of this Title. This chapter contains the MPTN Supplement to those adopted model codes. Where there is a conflict between a provision specified within the adopted code and this title, the provision as stated in this title shall govern.
- (b) Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, the conditions of the listing and manufacturer's instructions shall apply;
- (c) Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply; and,
- (d) Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of the referencing code, the provisions of the referencing code, as applicable, shall take precedence over the provisions in the referenced code or standard.
- (e) References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of the adopted model code.
- (f) Provisions in the appendices of the adopted model codes shall not apply unless specifically referenced in this Title.

§ 2. Amendments to the 2021 International Building Code

a. Scope and Administration

(1) [Del] Chapter 1: Scope and Administration

[Add] **Title.** The 2021 International Building Code, as amended by this section, shall be known as the International Building Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code”.

[Add] **Appendices.** The following appendices of the 2021 International Building Code are hereby specifically adopted and included in this code.

Appendix C – Group U – Agricultural buildings

Appendix H - Signs

Appendix I - Patio covers

[Add] **Oil-burning equipment, piping and storage.** In addition to the requirements of this code, the installation of oil burners, equipment, and appliances used in conjunction therewith, including tanks, piping, pumps, control devices and accessories shall comply with NFPA 31, Standard for the Installation of Oil Burning Equipment.

b. Technical Provisions

(1) [Add] Table A - Mashantucket Specific Structural Design Parameters

Table A
Mashantucket Specific Structural Design Parameters

| Ground Snow Load P_g (psf) | Frost Depth, inches | MCE Spectral Accelerations (g) | | Wind Design Parameters | | | | | | | Hurricane-Prone Region |
|---------------------------------|---------------------|---|-------|---|--------------------|-----------------------|---|--------------------|-----------------------|-----|---------------------------|
| | | | | Basic Design Wind Speeds, V (mph) | | | Allowable Stress Design Wind Speeds, V_{asd} (mph) | | | | |
| | | S_s | S_1 | Risk Cat. I | Risk Cat. II | Risk Cat III-IV | Risk Cat. I | Risk Cat. II | Risk Cat III-IV | | |
| 30 | 42 | 0.19 | 0.053 | 120 | 130 | 140 | 93 | 101 | 108 | Yes | |

Source: 2022 Connecticut State Building Code, Appendix P – Ledyard.

(2) Chapter 10 – Means of Egress

Section 1005 – Means of Egress Sizing

[Amd] **1005.3.1 Stairways.** The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch (7.6 mm) per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story.

Exceptions:

1. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1030.6.2 indicated for level or ramped aisles for means of egress components other than stairways where the entire path

for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.

2. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1030.6.3 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.

[Amd] **1005.3.2 Other egress components.** The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions:

1. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1030.6.2 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
2. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1030.6.3 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.

(3) Chapter 16 – Structural Design

Section 1608 – Snow Loads

[Amd] **1608.1 General.** Design snow loads shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less than that determined by Section 1607 and the calculated value for p_f shall not be less than value listed in Table A.

[Amd] **1608.2 Ground snow loads.** Ground snow loads to be utilized in determining the design snow loads for roofs shall be as listed in Table A.

Section 1609 – Wind Loads

[Amd] **1609.3 Basic design wind speed.** The basic design wind speed, V , in mph, for the determination of the wind loads shall be determined by Table A.

Section 1613 – Earthquake Loads

[Amd] **1613.2.1 Mapped acceleration parameters.** The parameters S_s and S_1 shall be determined from the 0.2 and 1-second spectral response accelerations shown in Table A.

(4) Chapter 17 – Special Inspections and Tests

Section 1704 – Special Inspections and Tests, Contractor Responsibility and Structural Observations

[Amd] **1704.2.4 Report requirements.** Refer to 2 L.U.R. Ch. 3, §4a.

[Amd] **1704.2.5.1 Fabricator approval.** Special inspections required by Section 1705 shall be permitted to be reduced or eliminated when approved by the Design Professional in Responsible Charge where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. Approved fabricators shall include:

1. A fabricator of structural steel certified by the American Institute of Steel Construction Inc.'s Certification Program for Structural Steel Fabricators, Standard for Steel Building Structures.
2. A manufacturer of metal building systems accredited by the ICC International Accreditation Service (IAS) in accordance with accreditation criteria IAC-AC-472.
3. A manufacturer of K-, LH-, or DLH-Series Joist or Joist Girders who is a member of the Steel Joist Institute and has completed the Institute's examination of complete engineering design details and calculations of joists, bridging and accessories for which standards have been adopted; data obtained from physical tests of joists to verify conclusions from analysis of the applicant company's engineering design, details and calculations; an initial plant inspection and subsequent periodic inspections are required to ensure that the applicant/member company possesses the facilities, equipment and personnel required to properly fabricate joists.
4. A fabricator of precast concrete certified by the Precast/Prestressed Concrete Institute's Plant Certification Program, commercial category.
5. A fabricator of cold-formed steel trusses certified by the Truss Plate Institute's Quality Assurance Program.
6. A fabricator of wood trusses certified by the Truss Plate Institute's Quality Assurance Program.
7. A fabricator of structural timber components and assemblies certified by the American Institute of Timber Construction's AITC 115 – Standard for Fabricated Structural Glued Laminated Timber Components and Assemblies.

At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.

Section 1705 – Required Special Inspections and Tests

[Amd] **1705.2.4. Cold-formed steel trusses.** Where a cold-formed steel truss clear span is 30 feet (9,144 mm) or greater, the *special inspector* shall verify that the permanent individual truss member restraint/bracing is installed in accordance with the *approved* truss submittal package. Where a cold-formed steel truss clear span is 60 feet (18,288 mm) or greater, the *special inspector* shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the *approved* truss submittal package.

[Add] **1705.2.5 Cold-formed steel Light-frame construction.** *Special inspections* of prefabricated cold-formed steel light-frame structural elements and assemblies shall be in accordance with Section 1704.2.5. *Special inspections* of site-built cold-formed steel light-frame structural elements and assemblies shall be in accordance with this section and Table 1705.2.5.

Exceptions: Special inspections, other than items 5(a) and 5(b) of table 1705.2.5, of site-built cold-formed steel light-frame structural elements and assemblies shall not be required in the following cases:

1. Buildings and structures in risk category I, per Table 1604.5.

2. Buildings and structures in risk category II per table 1604.5, which are in wind exposure categories B or C per 1609.4.3 and are not more than three stories high.

[Add] Table 1705.2.5

Table 1705.2.5

Required Special Inspections of Cold-Formed Steel Light-Frame Construction

| TYPE | CONTINUOUS SPECIAL INSPECTION | PERIODIC SPECIAL INSPECTION | IBC REFERENCE |
|--|-------------------------------|-----------------------------|---------------|
| 1. Inspect Material Grade and Thickness: | | X | |
| 2. Inspect Framing and Details | | | |
| a. Framing layout, member sizes and bearing lengths | | X | |
| b. Blocking, bridging and web stiffeners | | X | |
| c. Holes and notches ^a | | X | |
| 3. Inspect Connections | | | |
| a. Bolted and screwed connections, including diameter, length, spacing and edge distance | | X | |
| b. Welded connections | | X | |
| c. Proprietary hangers and framing anchors, including fastener sizes and quantities | | X | |
| d. Tie-down anchors, including anchor rod sizes and fastener sizes and quantities | | X | |
| 4. Inspect Shear Walls and Diaphragms | | | |
| a. Panel grade and thickness ^b | | X | |
| b. Steel strapping size, grade and thickness | | X | |
| c. Fastener size, length and spacing | | X | |
| d. Framing member sizes at panel edges | | X | |
| e. Blocking at panel edges | | X | |
| 5. Inspect Cold-Formed Steel Trusses | | | |
| a. Temporary installation restraint/bracing for truss spanning 60' or more | | X | 1705.2.4 |
| b. Permanent individual truss member restraint/bracing for trusses spanning 30' or more | | X | 1705.2.4 |

a. Inspections of holes to be performed after electrical, mechanical and plumbing rough-in inspections.

b. Includes wood structural panels, steel sheet panels and gypsum board panels.

Section 1705.5 – Wood construction

[Amd] **1705.5 Wood construction.** *Special inspections* of prefabricated wood structural elements and assemblies shall be in accordance with Section 1704.2.5. *Special inspections* of site-built wood structural elements and assemblies shall be in accordance with this section and Table 1705.5.

Exceptions: *Special inspections*, other than items 5(a) and 5(b) of table 1705.5, of site-built wood structural assemblies shall not be required in the following cases:

1. Buildings and structures in risk category I, per Table 1604.5
2. Buildings and structures in risk category II per table 1604.5, which are in wind exposure categories A or B per 1609.4.3 and are not more than three stories high.

[Amd] **1705.5.2. Metal-plate-connected wood trusses.** Where a truss clear span is 30 feet (9,144 mm) or greater, the *special inspector* shall verify that the permanent individual truss member restraint/bracing is installed in accordance with the *approved* truss submittal package. Where a truss clear span is 60 feet (18,288 mm) or greater, the *special inspector* shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the *approved* truss submittal package.

[Add] TABLE 1705.5

TABLE 1705.5**Required Special Inspections of Wood Construction**

| TYPE | CONTINUOUS SPECIAL INSPECTION | PERIODIC SPECIAL INSPECTION | IBC REFERENCE |
|--|-------------------------------------|-----------------------------------|------------------|
| 1. Inspect Grading of Wood Materials: | | | |
| a. Sawn lumber framing | | X | |
| b. Structural composite lumber | | X | |
| c. Wood structural panels | | X | |
| 2. Inspect Framing and Details | | | |
| a. Framing layout, member sizes and bearing lengths | | X | |
| b. Blocking and bridging | | X | |
| c. Holes and notches ^a | | X | |
| 3. Inspect Connections | | | |
| a. Bolted and screwed connections, including diameter, length, spacing and edge distance | | X | |
| b. Nailed connections, including diameter, length, type and spacing of nails | | X | |
| c. Proprietary hangers and framing anchors, including fastener sizes and quantities | | X | |
| 4. Inspect Shear Walls and Diaphragms | | | |
| a. Panel grade and thickness ^b | | X | |

| | | | |
|---|----------|----------|----------|
| b. Fastener size, length and spacing | | X | |
| c. Framing member sizes at panel edges | | X | |
| d. Blocking at panel edges | | X | |
| e. Field gluing | X | | |
| f. High-load diaphragms | | X | 1705.5.1 |
| 5. Inspect Metal-Plate Connected Wood Trusses | | | |
| a. Temporary installation restraint/bracing for truss spanning 60' or more | | X | 1705.5.2 |
| b. Permanent individual truss member restraint/bracing for trusses spanning 30' or more | | X | 1705.5.2 |
| c. Multi-ply truss connections | | X | |

- a. *Inspections of holes and notches to be performed after electrical, mechanical and plumbing rough-in inspections.*
- b. *Applies to wood structural panels and gypsum board panels.*

1705.18 Fire-resistant penetrations and joints

[Add] **1705.18.3 Installer certification.** Firestop installers shall be FM 4991 certified.

(5) Chapter 18 – Soils and foundations

1807.2 Retaining walls

[Add] **1807.2.1.1 Guards.** Retaining walls with a difference in height between the finished grade at the top of the wall and the finished grade at the bottom of the wall that is greater than 4 feet (1219 mm) shall be provided with guards complying with Sections 1015.3, 1015.4 and 1607.8 when there is a walking surface, parking lot or driveway on the high side located closer than 2 feet (610 mm) to the nearest side of the retaining wall. For the purpose of this section, grass, planting beds or landscaped areas shall not be considered a walking surface.

(6) Chapter 27 – Electrical

2702.2 Where required

[Add] **2702.2.20 Electric fire pumps.** Buildings provided with standby electrical power for the purpose of continuing operation or occupancy shall provide standby power in accordance with Article 701 of the National Electrical Code for any electric fire pump installed to provide an adequate water supply or minimum operating pressure to a required automatic sprinkler system.

[Amd] **2702.4 Maintenance. Emergency and standby power systems** shall be maintained and tested in accordance with NFPA 110, Type 60. The standby power system shall have a capacity and rating sufficient to supply all required equipment. Selective load pickup and load shedding shall be permitted in accordance with the National Electrical Code.

§ 3. Amendments to the 2021 International Residential Code Scope and Administration

a. Scope and Administration

(1) [Del] Chapter 1: Scope and Administration

[Add] **Title.** The 2021 International Residential Code, as amended by this section, shall be known as the International Residential Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code”.

[Add] **Appendices.** The following appendices of the 2021 International Residential Code are hereby specifically adopted and included in this code:

Appendix AE – Manufactured housing used as dwellings

Appendix AF – Radon control methods

Appendix AH – Patio covers

Appendix AO – Automatic vehicular gates

Appendix AP – Sizing of water piping system

[Add] **Specifically approved alternative materials.**

[Add] **“Hempcrete,” or “hemp-lime,”** is an approved alternative material, per TRC090816-01 of 09, when used as an interstitial insulation between traditional wood frame construction. In the event that specific code provisions have not been developed at the time of proposed use, review and approval by the Building Official shall be based on specifications previously approved by other building departments that enforce codes generally as rigorous as this code, and code provisions that have been established for use of similar “earth-based” construction systems (e.g. 2015 ICC International Residential Code, Appendix R – Light Straw-Clay Construction).

b. Technical Provisions

(1) Chapter 3 – Building Planning

Section R301 – Design Criteria

[Amd] Table R301.2(1) – Climate and Geographic Design Criteria

Table R301.2(1) Climate and Geographic Design Criteria

| Ground Snow Load | Wind Design | | | Seismic Design Category | Subject to Damage From | | | Winter Design Temp. | Ice Barrier Underlayment Required | Flood Hazards | Air Freezing Index | Mean Annual Temp. |
|------------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------|-------------------------|------------------------|------------------|---------------------------|---|------------------|--------------------------|-------------------------|
| | Ultimate Wind Speed, V_{ult} | Nominal Wind Speed, V_{asd} | Topographic Effects | | Weathering ^b | Frost Line Depth | Termite | | | | | |
| 30 psf | 126 | 99 ^a | No | B ¹ | Severe | 42 Inches | Mod. to Heavy | 7°F | Yes | Site Spec. | 1,500 or less | 50°F |

^a Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.

^b Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code.

¹ Site Soil Class A-E; If Site Class F is present, the Short Period Spectral Response Acceleration (SDS) shall be determined according to Section 1613.3 of the International Building Code, and the Seismic Design Category shall be determined in accordance with Table 301.2.2.1.1.

² See applicable Flood Insurance Rate Maps with effective date 18JUL11.

Manual J Design Criteria ACC Manual J 8th Edition 2016

| Elevation, Feet | Latitude, Degrees North | Heating, 99% Outdoor Dry Bulb | Cooling | | | | | Daily Range (DR) |
|--------------------|-------------------------------|--|----------------|------------------------|--------------------|--------------------|--------------------|---------------------|
| | | | Outdoor Air | | Design Grains | | | |
| | | | 1% Dry Bulb | Coincident Wet Bulb | 55% RH, Indoors | 50% RH, Indoors | 45% RH, Indoors | |
| 197 | 41 | 7 | 86 | 73 | 30 | 37 | 44 | M |

Section R311 – Means of Egress

[Amd] **R311.3.1 Floor elevations** at the required egress doors. Landings or finished floors at the required egress door shall not be more than 1½ inches (38 mm) lower than the top of the threshold.

Exception: The landing or floor on the exterior side shall not be more than 8¼ inches (209.5 mm) below the top of the threshold provided the door does not swing over the landing or the floor.

Where exterior landings or floors serving the required egress door are not at grade, they shall be provided with access to grade by means of a ramp in accordance with Section R311.8 or a stairway in accordance with Section R311.7.

[Amd] **R311.3.2 Floor elevations** for other exterior doors. Doors other than the required egress door shall be provided with landings or floors not more than 8¼ inches (209.5 mm) below the top of the threshold.

Exception: A landing is not required where a stairway of three or fewer risers, including the top riser from the dwelling to the top tread, is located on the exterior side of the door, provided the door does not swing over the stairway.

[Amd] **R311.7.5.1 Risers.** The maximum riser height *shall* be 8¼ inches (209.5 mm). The riser *shall* be measured vertically between leading edges of adjacent treads. The greatest riser height within any *flight of stairs* *shall* not exceed the smallest by more than ¾ inch (9.5 mm). Risers *shall* be vertical or sloped from the underside of the *nosing* of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted provided that the opening between treads does not permit the passage of a 4-inch-diameter (102 mm) sphere.

Exceptions:

1. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less.
2. The riser height of spiral stairways shall be in accordance with Section R311.7.10.1.

[Amd] **R311.7.5.2 Treads.** The minimum tread depth *shall* be 9 inches (229 mm). The tread depth *shall* be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any *flight of stairs* *shall* not exceed the smallest by more than ¾ inch (9.5 mm).

Exception: The tread depth at spiral stairways shall be in accordance with Section R311.7.10.1.

Section R312 – Guards and Window Fall Protection

[Add] **R312.1.1.1 Retaining wall guards.** Retaining walls with a difference in finished grade from the top of the wall to the bottom of the wall that is greater than 4 feet (1219 mm) *shall* be provided with *guards* complying with Section R312 when there is a walking surface, parking lot or driveway on the high side located closer than 2 feet (610 mm) to the retaining wall. For the purposes of this section, grass, planting beds or landscaped areas are not a walking surface.

Section R313 – Automatic Fire Sprinkler Systems

[Amd] **R313.1 Townhouse** automatic fire sprinkler systems. When an automatic residential fire sprinkler system is to be installed in *townhouses*, it *shall* be designed and installed in accordance with Section P2904 or NFPA 13D.

[Del] **R313.1.1 Design and installation.** Delete section.

[Amd] **R313.2** One- and two-family dwellings automatic fire systems. When an automatic fire sprinkler system is to be installed in one- and two-family dwellings, it shall be designed and installed in accordance with Section P2904 or NFPA 13D.

[Del] **R313.2.1 Design** and installation. Delete section.

(2) Chapter 4 – Foundations

Section R401 - General

[Add] **R401.3.1 Drainage nuisances.** Any surface or roof drainage which creates a structural or health hazard, or any other nuisance to the owners or occupants of adjacent premises, or to the public by reason of discharge into, onto or across any adjacent building, premises or public thoroughfare, shall be a violation. The building official shall require the drainage to be disposed of in an approved manner.

Section R404 – Foundation and Retaining Walls

[Add] **R404.4.1 Guards.** Retaining walls with a difference in finished grade from the top of the wall to the bottom of the wall that is greater than 4 feet (1219 mm) shall be provided with guards complying with Sections R312.1.2 and R312.1.3 when there is a walking surface, parking lot or driveway on the high side located closer than 2 feet (610 mm) to the retaining wall. For the purpose of this section, grass, planting beds or landscaped areas shall not be a walking surface.

Section R405 – Foundation Drainage

[Add] **R405.3 Above grade drainage.** Above grade drainage systems, including but not limited to, gutters and downspouts, roof drains, and yard drains, shall not be connected to the foundation drainage system.

(3) Chapter 11 – Energy Efficiency

Section N1102 (R402) Building Thermal Envelope

[Add] **N1102.1.6 Prescriptive alternative.** Compliance with the following criteria shall be considered in compliance with this code.

Ceiling insulation; $\geq R-60$

Wall cavity insulation; $\geq R-23$

Floors over unconditioned spaces; $\geq R-30$

Floors over outside air; $\geq R-30$

Slab-on-grade; $\geq R-10$, 4 ft. vertical

Glazing u-value; ≤ 0.26

Glazing SHGC; ≥ 0.27

Doors, < 50% glazing u-value; ≤ 0.16

Skylights; none

Glazing area; $\leq 14\%$ of fenestration area

Heating; $\geq 95\%$ efficacy

Air conditioning; ≥ 16 SEER

(4)

(5) Chapter 25 – Plumbing Administration**Section P2503 - Inspection and Tests**

[Amd] **P2503.5.1 Rough plumbing.** DWV systems shall be tested on completion of the rough piping installation by water or, for piping systems other than plastic, by air, without evidence of leakage. Either test shall be applied to the drainage system in its entirety or in sections after rough-in piping has been installed, as follows:

1. **Water test.** Each section shall be filled with water to a point not less than 10 feet (1524 mm) above the highest fitting connection in that section, or to the highest point in the completed system. Water shall be held in the section under test for a period of 15 minutes. The system shall prove leak free by visual inspection.
2. **Vacuum test.** The portion under test shall be evacuated of air by vacuum-type pump to achieve a uniform gauge pressure of -5 pounds per square inch (psi) or negative 10 inches of mercury column (-34 kPa). This pressure shall be held without the removal of additional air for a period of 15 minutes.

(6) Chapter 31 – Vents**Section P3103 – Vent Terminals**

[Amd] **P3103.1 Roof extension.** Open vent pipes that extend through a roof shall be terminated at least 12 inches (305 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extension shall be at least 7 feet (2134 mm) above the roof.

[Del] **P3103.2 Frost closure.** Delete without substitution.

§ 4. Amendments to the 2021 International Property Maintenance Code

a. Scope and Administration

[Del] Chapter 1 – Scope and Administration

[Add] **Title.** The 2021 International Property Maintenance Code, as amended by this section, shall be known as the International Property Maintenance Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code.”

[Add] **Enforcement Official.** The Land Use Commissioner representing the Planning and Zoning discipline, as defined within 1 L.U.R. Ch. 1, §3a[6], shall be the code official responsible for enforcement of this code within residential portions of Mashantucket; for all other areas the Building Official shall be the responsible code official.

b. Technical Provisions

Chapter 3 – General Requirements

Section 302 – Exterior Property Areas

[Amd] **302.4 Weeds.** All premises and exterior property shall be maintained free from weeds or plant growth in excess of 8 inches. All noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

Section 304 – Exterior Structure

[Amd] **304.14 Insect screens.** During the period from April 15th to October 15th, every door, window and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with approved tightly fitting screens of minimum 16 mesh per inch [16 mesh per 25 mm], and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other approved means, such as air curtains or insect repellent fans, are employed.

§ 5. Amendments to the 2021 International Energy Conservation Code**a. Administrative Provisions****(1) [Del] Chapter 1 [CE] - Scope and Administration**

[Add] **Title.** The 2021 International Energy Conservation, as amended by this section, shall be known as the International Energy Conservation Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code.”

(2) [Del] Chapter 1 [RE] - Scope and Administration**b. Technical Provisions****(1) [Del] Chapter 2 [RE] – Definitions****(2) [Del] Chapter 3 [RE] – General requirements****(3) [Del] Chapter 4 [RE] – Residential Energy Efficiency****(4) [Del] Chapter 5 [RE] – Existing buildings****(5) [Del] Chapter 6 [RE] – Referenced standards**

§ 6. Amendments to the 2021 International Mechanical Code

a. Administrative Provisions

(1) [Del] Chapter 1: Scope and Administration

[Add] **Title.** The 2021 International Mechanical Code, as amended by this section, shall be known as the International Mechanical Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code”.

[Add] **Appendices.** The following appendices of the 2021 International Mechanical Code are hereby specifically adopted and included in this code.

Appendix A – Chimney connector and pass-throughs

[Add] **Oil-burning equipment, piping and storage.** In addition to the requirements of this code, the installation of oil burners, equipment, and appliances used in conjunction therewith, including tanks, piping, pumps, control devices and accessories shall comply with NFPA 31.

b. Technical Provisions

(1) Chapter 5 – Exhaust Systems

Section 506 - Commercial Kitchen Hood Ventilation System Ducts and Exhaust Equipment.

[Amd] **506.3.2.5 Grease duct test.** Prior to the use or concealment of any portion of a grease duct system, a leakage test shall be performed. Ducts shall be considered to be concealed where installed in shafts or covered by coatings or wraps that prevent the ductwork from being visually inspected on all sides. The permit holder shall be responsible to provide the necessary equipment and perform the grease duct leakage test. The leakage test shall consist of one of the following tests, or an approved equivalent test:

Water test. The water test shall be performed by use of a pressure washer operating at a minimum of 1500 psi (10.34 kPa), simulating cleaning operations. The water shall be applied directly to all areas to be tested. No water applied to the duct interior shall be visible on any exterior surface in any volume during the test.

As an alternative to the water test, one of the following optional tests may be performed upon approval from the MPTN Building Official and MPTN Fire Marshal:

Positive pressure smoke test. The positive pressure smoke test shall be performed by sealing the entire duct system from the hood exhaust opening(s) to the duct termination. Visible smoke shall be introduced to the duct system. The sealed duct shall then be pressurized to a minimum pressure of 1.0 inch water column, but shall not exceed the positive pressure capability of the system and components under test. No smoke shall emit from any exterior surface of the duct.

Air test. The air test shall be performed by sealing the entire duct system from the hood exhaust opening(s) to the duct termination. The sealed duct system shall then be pressurized to a minimum pressure of 1.0 inch (249 Pa) water column and shall be required to hold the initial set pressure for a minimum of 20 minutes.

Light test. The light test shall be performed by passing a lamp having a power rating of not less than 100 watts through the entire section of

ductwork to be tested. The lamp shall be open so as to emit light equally in all directions perpendicular to the duct walls.

A test shall be performed for the entire duct system, including the hood-to-duct connection. All connections, seams and welds shall be visible during the test. The ductwork shall be permitted to be tested in sections, provided that every joint is tested. For listed factory-built grease ducts, this test shall be limited to duct joints assembled in the field and shall exclude factory welds.

(2) Chapter 6 – Duct Systems

Section 606 Plenums.

[Amd] **606.2** Where required. Smoke detectors shall be installed where indicated in Sections 606.2.1 to 606.2.3, inclusive.

Exception: Smoke detectors shall not be required where air distribution systems are incapable of spreading smoke beyond the enclosing walls, floors and ceilings of the room or space in which the smoke is generated, or where the sole purpose of the air distribution system is to remove air from the inside of the building to the outside of the building.

[Amd] **606.2.1** Return and supply air systems. Smoke detectors shall be installed in return and supply air systems with a design capacity greater than 2,000 cubic feet per minute in the supply air duct downstream of any filters and ahead of any branch connections.

[Amd] **606.2.3** Return air risers. Where return air risers serve two or more stories and serve any portion of a return air system having a design capacity greater than 15,000 cubic feet per minute, smoke detectors shall be installed at each story. Such smoke detectors shall be located upstream of the connection between the return air riser and any air ducts or plenums.

Exception: Smoke detectors are not required in the return air system where all portions of the building served by the air distribution system are protected by area smoke detectors connected to a fire alarm system. The area smoke detection system shall comply with Section 606.4.

§ 7. Amendments to the 2021 International Plumbing Code

a. Administrative Provisions

(1) [Del] Chapter 1: Scope and Administration

Add] **Title.** The 2021 International Plumbing Code, as amended by this section, shall be known as the International Plumbing Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code”.

[Add] **Appendices.** The following appendices of the 2021 International Plumbing Code are hereby specifically adopted and included in this code.

Appendix B – Rates of rainfall for various cities

Appendix C – Structural safety

Appendix D – Degree day and design temperatures

Appendix E – Sizing of water piping systems

b. Technical Provisions

(1) Chapter 3 – General Regulations

Section 305 Protection of Pipes and Plumbing System Components

[Del] 305.4.1 Sewer depth

Section 312 – Tests and Inspections

[Amd] **312.2 Drainage and vent water test.** A water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to the point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest openings of the section under test, and each section shall be filled with water, but sections shall not be tested with less than a 10-foot (3048 mm) head of water. In testing successive sections, not less than the upper 10 feet (3048 mm) of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost 10 feet (3048 mm) of the system, shall have been submitted to a test of less than a 10-foot (3048 mm) head of water. This pressure shall be held for not less than 15 minutes. The system shall then be tight at all points.

Exception: A Vacuum test may be performed, in lieu of a water test, with the prior approval of the Building Official. The portion under test shall be evacuated of air by a vacuum-type pump to achieve a uniform gauge pressure of -5 pounds per square inch or a negative 10 inches of mercury column (-34 kPa). This pressure shall be held without the removal of additional air for a period of 15 minutes.

(2) Chapter 9 – Vents

Section 903 – Vent terminals

[Amd] **903.1 Roof extension.** Open vent pipes that extend through a roof shall be terminated not less than 12 inches above the roof, except where a roof is to be used for any purpose other than weather protection, the vent extensions shall terminate not less than 7 feet above the roof.

[Del] **903.2 Frost closure. Delete section.**

§ 8. Amendments to the 2021 International Existing Building Code

a. Administrative Provisions

(1) [Del] Chapter 1: Scope and Administration

[Amd] **Title.** The 2021 International Existing Building Code, as amended by this section, shall be known as the International Existing Building Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code”.

[Add] **Applicability.** The provisions of the International Existing Building Code shall apply to matters governing the repair, alteration, change of occupancy, addition to and relocation of existing buildings.

b. Technical Provisions

(1) Chapter 8 – Alterations – Level 2

[Add] **804.1.1 Master Egress Plan Required.** Any alteration that effects Means of Egress shall require submission of an updated Master Egress Plan prior to issuance of a Land Use Permit.

Exceptions:

Under the following circumstances, when approved by the Building Official and Fire Marshal, submittal of the revised Master Egress Plan may be deferred; however, under no circumstance will the Commission issue a Certificate of Occupancy until received.

1. Alterations resulting in minor changes to Means of Egress, when it is obvious that Means of Egress capacity for all occupants will not be negatively impacted.
2. Alterations that will result in an increase to the Means of Egress capacity. Such changes may be submitted as mark-up revisions to the Master Egress Plan.

(2) Chapter 10 – Change of Occupancy

[Add] **1005.2 Master Egress Plan Required.** Any change of use or occupancy shall require submission of an updated Master Egress Plan prior to issuance of a Land Use Permit.

Exceptions:

Under the following circumstances, when approved by the Building Official and Fire Marshal, submittal of the revised Master Egress Plan may be deferred; however, under no circumstance will the Commission issue a Certificate of Occupancy until received.

1. Changes when the proposed occupant load increases by no more than 5-percent over the previous use and, it is obvious that Means of Egress capacity for all occupants can be accommodated.
2. Changes when the proposed occupant load will not increase. Such changes may be submitted as mark-up revisions to the Master Egress Plan.

§ 9. Amendments to the 2021 International Swimming Pool and Spa Code

a. Administrative Provisions

(1) [Del] Chapter 1: Scope and Administration

[Add] **Title.** The 2021 International Swimming Pool and Spa Code, as amended by this section, shall be known as the International Swimming Pool and Spa Code portion of the Mashantucket Building Code, hereinafter referred to as “the code” or “this code”.

b. Technical Provisions

Chapter 11 Reference Standards

[Add] **ASME A112.19.17**(2010): Manufactured Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub, and Wading Pool Suction Systems

[Add] **ASTM F2376-117a** (2017): Standard Practice for Classification, Design, Manufacture, Construction and Operation of Water Slides Systems

[Add] **ASTM F2387-04** (2012): Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming Pools, Spas and Hot Tubs

[Add] **ASTM F2461-16e1**(2016): Standard Practice for Manufacture, Construction, Operation and Maintenance of Aquatic Play Equipment

§ 10. Amendments to the 2017 ANSI A117.1 Accessible and Usable Buildings and Facilities

a. Administrative Provisions

106 Referenced Documents

106.2 Documents

[Amd] **106.2.8 Safety Code for Elevators and Escalators:** ASME A17.1-2013 (American Society of Mechanical Engineers International, Two Park Avenue, New York , NY 10016-5990).

[Amd] **106.2.9 Safety Standard for Platform Lifts and Stairway Chairlifts:** ASME A18.1-2008 (American Society of Mechanical Engineers International, Two Park Avenue, New York, NY 10016-5990).

b. Technical Provisions

703 Signs

[Amd] **703.6.3.1 International Symbol of Accessibility.** References in this code to the International Symbol of Accessibility shall comply with Figure 703.6.3.1.



[Amd] FIG. 7.3.6.3.1

TITLE 3: FIRE PREVENTION CODE

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|----------------------------|---|
| 20-Jun-14 | LU-14-079 | Codified as 2 L.U.R. pursuant to TCR052914-04 of 10 |
| 23-Nov-16 | LU-17-501 | Adopted Interim Code Adoption, Technical Provisions |
| 01-Oct-18 | LU-18-503 | Revised with Updated Codes |
| 28-Jun-19 | Administrative | Corrected reference version, NFPA 58 |

TITLE 3. FIRE PREVENTION CODE

CHAPTER 1. GENERAL

§ 1. Purpose and Scope

a. The purpose of this code is to establish the minimum requirements necessary to safeguard the public health, safety and general welfare.

b. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, demolition, and occupancy of every building or structure or any appurtenances connected or attached to such buildings or structures in Mashantucket, and

§ 2. Applicability

a. General

- (1) This Title, to be known as the Mashantucket Fire Prevention Code, has been adopted by the Mashantucket Pequot Land Use Commission for regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for facilities, supplied utilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy or use.
- (2) This Mashantucket Fire Prevention Code shall apply to all persons and places in Mashantucket. All must comply with the applicable prohibitions and fire and life safety requirements.
- (3) Chapter 4 identifies those model codes, published by the National Fire Protection Association (NFPA), which have been adopted by reference as part of this Title. Chapter 5 contains the MPTN Supplement to those adopted model codes. Where there is a conflict between a provision specified within the MPTN Supplement (Ch. 5) and that specified within one of the adopted NFPA Codes (Ch. 4), the provision as stated in the MPTN Supplement shall govern.
- (4) Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.
- (5) In the event that any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.

b. Existing structures

The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this Title or the MPTN Building Code, or as is deemed necessary by the Land Use Commission for the general safety and welfare of the occupants and the public.

- (1) Alterations to any building or structure shall comply with the requirements of this Code for new construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of the Code than the existing building or structure was prior to the alteration.

- (2) A change in use usually changes the applicability of code requirements and as such, will subject the entire area relevant to the change in use to review for compliance with this Code. However, the Fire Marshal may permit a change in use without full compliance if the new use is less hazardous than the existing use based on life and fire risk.
- (3) Any deficiency discovered must be rendered no less conforming to the provisions of the Code that was enforced at the time the existing building or structure was originally constructed.

c. Permits Required

(1) Land Use Permit

Any person who requires a permit pursuant to 14 M.P.T.L., the Land Use Law, must first obtain a Permit from the MPTN Land Use Commission prior to issuance of any permit required by the Fire Marshal.

(2) Fire Safety Permits

Persons and businesses that conduct or supervise the activities regulated by this Code may also be required to obtain permits and certificates that authorize them to engage in those activities. Chapter 2 of this Title describes those specific Fire Safety Permits required by any person who intends to engage in a covered activity.

d. Inspections Required

- (1) All permitted activities must be inspected by the Fire Marshal to ensure compliance with this Code prior to occupancy or use.
- (2) Other specific inspections shall be conducted as specified within Chapter 3 of this Title.

§ 3. Administration

a. Fire Marshal

The Fire Marshal is the Land Use Commissioner who represents the MPTN Fire Department and is appointed as specified within 1 L.U.R. ch. 1, §3a.(4).

- (1) The Fire Marshal shall have the authority to render interpretations of this Code.
- (2) The Fire Marshal shall enforce the provisions of this Code as specified within MPTN Land Use Law (14 M.P.T.L.).
- (3) The Fire Marshal shall keep official records of applications received, permits and certificates issued, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period specified by the MPTN record retention policy.
- (4) The Fire Marshal, while acting in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage occurring to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representative of MPTN until the final termination of the proceedings.

(5) Right of Entry

In addition to the authority established within 14 M.P.T.L. Ch. 9, § 1b, where the Fire Marshal has reasonable cause to believe that there exists, in a structure or upon a premises, a condition which is contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the Fire Marshal is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises is occupied that credentials be presented to the occupant and entry requested. If such structure or premises is unoccupied, the Fire Marshal shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the Fire Marshal shall have recourse to the remedies provided by law to secure entry.

(6) Require Testing

- (a) Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the Fire Marshal shall have the authority to require tests as evidence of compliance to be made at the expense of the owner. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the Fire Marshal shall approve the testing procedures.
- (b) Tests shall be performed by an approved agency. Reports of such tests shall be retained by the Fire Marshal for the period specified by the MPTN record retention policy.

b. Fire Protection Inspectors

The Fire Marshal, from time to time, may utilize staff or contract other inspectors, plan examiners or other technical contractors to assist with the duties of Fire Marshal. Such individuals shall have powers as delegated by the MPTN Fire Chief.

CHAPTER 2. FIRE SAFETY PERMITS

§ 1. Permits Required

a. It is the responsibility of the owner or agent to ensure that each contractor, prior to commencing work on his permitted activity, applies for and is issued all applicable Fire Safety Permits. Failure of a Permittee's contractors to obtain the applicable permits prior to commencing work may result in Enforcement Action against the Permittee by the MPTN Land Use Commission.

b. Commencement of work without a properly issued Permit will result in the issuance of a Citation with penalty pursuant to 1 L.U.R. Ch 8, as authorized by 14 M.P.T.L. Ch. 9, §2a.

§ 2. Types of Permits

a. Hot Work Permits

A Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. Those include but are not limited to: brazing, cutting, grinding, soldering, torch cutting or torch-applied roofing and welding.

- (1) Prior to beginning any hot work, contractors shall request a permit from the Fire Alarm Center by calling 860 312-4397.
 - (2) Upon request the MPTN Fire Department will conduct an inspection of the job site. The inspection shall include fire extinguishers, work to be performed and fire watch.
 - (a) Extinguishers must be full, pinned and sealed, and have a current inspection tag.
 - (b) Hot work equipment must be in good operating order.
 - (c) The area within thirty-five (35) feet must be clear of combustibles, flammable liquids, dusts, or explosive atmospheres.
 - (3) The contractor shall notify the Fire Alarm Center upon completion of work, and be present at the job site to sign-off that the work has been completed and that the job site is fire safe.
 - (4) The MPTN Fire Department will complete a final walk thru of the job site.
 - (a) The contractor shall be present at this walk thru,
 - (b) sign the permit verifying that work is completed and the job site is fire safe, and
 - (c) return the permit to MPTN Fire personnel upon their final walk thru.
- b. Blasting Permits
- (1) A Blasting Permit is required for the transport and use of explosives.
 - (a) Transport of explosives is restricted to the most direct route to and from an active job site.
 - (b) No vehicle transporting any quantity of explosives shall be left unattended at any time, and when attended, the attendant must be a licensed blaster.
 - (c) Permits shall only be issued to blasters licensed by the State of Connecticut.
 - (d) Blasters shall call the Fire Department Routine Dispatch Number (860 396-6662) daily to report blasting activity that day, before operations begin.
 - (2) Applications for Blasting Permits shall be submitted on forms provided by the MPTN Fire Marshal's Office.
- c. Event/Display Permits
- (1) Special events that include erection of a tent, stage, bandshell, trailer, portable building, grandstand, bleachers or placement of portable toilets are considered Land Use Activities and require a permit from the Land Use Commission pursuant to 14 M.P.T.L.
 - (2) Any other event or display, not requiring a Land Use Permit, requires an Event/Display Permit from the MPTN Fire & Emergency Services.
 - (3) Applications for Event/Display Permits shall be submitted on forms provided by the MPTN Fire Marshal's Office.
- d. Display Special Effect Permits
- (1) Permits are required for all fireworks displays or other pyrotechnic effects.
 - (2) Applications for a Permit to Display Special Effects shall be submitted on forms provided by the MPTN Fire Marshal's Office.
- e. Vehicle Display
- (1) The display of a vehicle, motorcycle, boat, etc. in a building, tent, canopy or public area requires a permit.
 - (2) Applications for a Vehicle Display Permit shall be submitted on forms provided by the MPTN Fire Marshal's Office.

f. Temporary Storage

- (1) Temporary Storage of any materials outside of a designated storage area requires a permit.
- (2) Exterior placement and use of storage containers or temporary designation of a storage yard (e.g. Conex and lay-down area) requires a permit.
- (3) Applications for a Temporary Storage Permit shall be submitted on forms provided by the Fire Marshal's Office.
- (4) Issued Permits must be posted at the location of storage at all times.

g. Open Burning

- (1) Applications for open burning shall be submitted on forms provided by the MPTN Fire Marshal's Office.
- (2) Notification shall be provided to Fire Department Dispatch (860 396-6662) prior to and at the conclusion of the burn.
 - (a) Fires shall not be commenced prior to 8:00 am, and
 - (b) must be completely extinguished, by wetting down to ensure that there will be no rekindling of fire, by 5:00 pm.
- (3) The fire must be maintained such as to minimize smoke production. Fires shall not contain fallen leaves garbage, trash, plastics, rubber, painted or chemically treated materials, or construction/demolition debris.
- (4) Permits, when issued, shall be conditional upon conditions at the time of the burn. No burn shall be commenced:
 - (a) when the Forest Fire Danger is rated high, very high or extreme;
http://www.ct.gov/deep/cwp/view.asp?a=2222&q=320740&deepNav_GID=1631
 - (b) when the Air Quality Index (AQI) is forecasted to be 75 or higher;
<http://www.ct.gov/deep/cwp/view.asp?a=2222&q=320646>
 - (c) outside the hours of 8:00 am and 5:00 pm;
 - (d) when wind speed is less than 5 miles per hour or greater than 15 miles per hour; and
 - (e) skies are overcast.
- (5) Fire control equipment (i.e. brooms, rakes, garden hose, water filled buckets, etc.) shall be kept at the burn site until the fire is completely extinguished.
- (6) The burn shall be supervised at all times and a copy of the Permit kept at the burn site and readily available to the authority having jurisdiction.

§ 3. Other Required Notifications or Approvals

a. Crane Permits

The Fire Marshal must review and approve all crane lift plans.

b. Liquor Control

The Fire Marshal shall only sign-off on Liquor Control Permits following successful passage of inspection.

c. Fire Control and Fire Alarm Systems

Before commencing any and all work on Fire Alarm or Sprinkler Systems the contractor shall contact the Fire Marshal to schedule a meeting to discuss requirements, approved plans and related matters.

- (1) Electrical contractors for fire alarm systems shall request a site walk down from the Fire Department prior to the start of work on any system. This is to allow for the review of device compatibility, programming, modification to existing wiring and other related issues.
- (2) Any and all questions or issues relative to Fire Code compliance shall be forwarded to the Fire Marshal; this includes sprinkler and fire alarm systems.
- (3) Contractors performing any work shall adhere to the project specification documentation supplied with plans or drawings which must be reviewed and approved by the Fire Marshal.
- (4) Failure to schedule a pre-construction meeting before commencing construction may result in the issuance of a citation.

CHAPTER 3. INSPECTIONS

§ 1. General

The Fire Marshal is responsible for compliance with this Fire Prevention Code. Therefore, any area visited by the Fire Marshal during the normal course of his duties is subject to his inspection. Deficiencies found to exist, shall be Cited by the Fire Marshal, pursuant 1 L.U.R. Ch 8 (as authorized by 14 M.P.T.L. Ch. 9, §2a), in writing to the owner, lessee, occupant, or person in control of such building, structure, or place to remedy such condition.

§ 2. Permit Specific Inspections

Typically, an inspection is completed prior to the Fire Marshal issuing a permit. However, all permitted activities are subject to unannounced inspection at any time during the permitted activity. Deficiencies found to exist, shall be Cited by the Fire Marshal, pursuant 1 L.U.R. Ch 8 (as authorized by 14 M.P.T.L. Ch. 9, §2a), in writing to the Permittee.

§ 3. Liquor Control Inspections

Applications for a State Liquor Permit require sign-off by the Fire Marshal. Applicants must contact the Fire Marshal's office to schedule an inspection for this purpose.

§ 4. Construction Inspections

- a. The Fire Marshal will inspect any construction activity or installation to ensure compliance with this code.
- b. Whenever any installation subject to inspection, testing and/or approval in accordance with this code, is covered or concealed without having first been inspected, tested and/or approved, the Fire Marshal may require that such work be exposed for inspection.
- c. General Housekeeping
 - (1) In addition to specific code requirements the Fire Marshal shall enforce the following general housekeeping requirements when inspecting construction activities.
 - (a) Combustibles shall be maintained to a minimum in the work area. All trash, packing materials and other excessive combustibles shall be removed at the end of the work shift.

When practical, all unpacking should be done outside of the facility, or have combustible packing materials at the work location removed immediately.

- (b) Contractors shall bring inside the work area ONLY the minimum amounts of flammable/combustible liquids, cutting/welding gases and paints or other solvents for that work shift. These shall be stored in approved containers and must be removed to a designated storage area outside of the building at the end of each shift.
 - (c) Contractors, and those in their employ, shall observe the smoking policy of all MPTN facilities.
 - (d) Contractors are responsible to provide their own fire extinguishers for the job site as required by the Hot Work Permit. Fire extinguishers mounted on the walls are to be used only in an emergency as a backup by the Fire Watch.
- (2) Anyone found in violation of any rules will be subject to disciplinary action, up to and including fines and/or removal from the job site.
- d. An emergency management evacuation and notification plan may be required for some job sites.

§ 5. Fire Control and Fire Alarm Acceptance Testing

If required, Acceptance Testing for installation or modifications made to a Fire Control or Fire Alarm System shall be witnessed by the Fire Marshal.

- (1) All work shall be completed, systems ready and pre-tested prior to the arrival of the inspector.
- (2) Failure to pre-test may result in a cancellation or inspection/test failure.

§ 6. Certificate of Completion Inspections

The Land Use Commission shall not issue a Certificate of Completion and a Permitted Activity shall not be occupied, used or operated without a final inspection by the Fire Marshal.

- (1) A temporary Certificate may be issued if the Fire Marshal and Building Official have confirmed that there are no outstanding life safety concerns.
- (2) A final Certificate can only be issued when the Fire Marshal and Building Official have completed their final inspections and found there to be no outstanding issues.

§ 7. Annual Inspections

a. The Fire Marshal shall make, or cause to be made, inspections with sufficient frequency to secure efficient supervision of all buildings, structures, and places used either for commercial purposes or occupied or frequented by large numbers of people, and of all schools, institutions, theaters, multiple dwellings, or places of assembly to determine:

- (1) whether there exists any fire hazards in corridors, stairways, fire escapes, and their approaches with regard to obstructions, in the disposition, quantity, arrangement, and protection of stock and combustible material, in the disposal of waste materials, or in heating devices and ovens;
- (2) whether there are solids, liquids, or gasses which may be flammable, poisonous, reactive, or explosive, alone or in combination, or under fire conditions; and
- (3) that hazardous machinery and appliances are protected with regard to safety from fire; and to ascertain whether the provisions of this Code are being effectively carried out.

b. Deficiencies found to exist, shall be Cited by the Fire Marshal, pursuant 1 L.U.R. Ch 8 (as authorized by 14 M.P.T.L. Ch. 9, §2a), in writing to the owner, lessee, occupant, or person in control of such building, structure, or place to remedy such condition.

§ 8. Complaints

a. The Fire Marshal shall make or cause to be made an inspection of any building, structure, or place within a reasonable time after any person complains that:

- (1) any provision of this Code is being violated, or
- (2) that combustible materials are kept in such building, structure, or place in such a manner as to cause a fire or increase the intensity or spread of fire, or
- (3) that doors, stairways, corridors, exits, fire escapes, or means of ingress or egress in any factory, workshop, place of amusement, education, employment, habitation, or recreation facility is obstructed or in an unsafe condition, or
- (4) that any exit door or exit is kept locked or fastened during the time such places are occupied or frequented by employees or by the public, or
- (5) that any such building, structure, or place is occupied or crowded beyond the capacity of its exits, or
- (6) that heating appliances, apparatus, or devices in any such building or structure are insecure or dangerous, or
- (7) that any building, structure, or place is being maintained in such a manner as to be a fire menace or dangerous in case of fire or explosion.

b. If any of the above conditions is found to exist, the Fire Marshal may issue a Citation, pursuant 1 L.U.R. Ch 8 (as authorized by 14 M.P.T.L. Ch. 9, §2a), in writing to the owner, lessee, occupant, or person in control of such building, structure, or place to remedy such condition.

CHAPTER 4. CODES ADOPTED BY REFERENCE

As authorized by 14 M.P.T.L. Ch. 4, the MPTN Land Use Commission has adopted the model codes specified within this chapter, by reference; except as may be amended, altered or deleted within Chapter 5 of this Title, the MPTN Supplement, or as may be superseded in the future by amendment to this Chapter.

§ 1. New construction, renovation, or change of use and new buildings.

International Fire Code of the International Code Council, Inc., 2015 edition.

§ 2. Existing buildings/occupancies.

NFPA 101, Life Safety Code 2015 edition.

§ 3. Fire Prevention and other adopted life safety codes and references.

NFPA 1, Uniform Fire Code 2015 edition

§ 4. Equivalency

a. In general, provisions within the 2016 Connecticut Fire Safety Code, only to the extent that they add, amend or otherwise specify changes to the model code provisions adopted within this title, will be considered acceptable as an alternative or an equivalent method of compliance provided such alternatives are acceptable upon approval by the Building Official and Fire Marshal.

b. When considering whether or not to raise an objection the Building Official and Fire Marshal shall ensure compliance with the intent of the following:

- (1) Section 14 of the Tribal-State Compact that requires tribal ordinances and regulations, governing health and safety standards applicable to gaming facilities, be no less rigorous than standards generally imposed by the laws and regulations of the State relating to public facilities with regard to building, sanitary, and health standards and fire safety; and,
- (2) Tribal Council Resolution TCT102704-02 of 03 that requires the Land Use Commission, with respect to home construction, to apply regulatory interpretation that is consistent with the interpretation of similar building code provisions in New London County, Connecticut.

CHAPTER 5. MPTN SUPPLEMENT

§ 1. General

a. Referenced Model Code Annotations - As used in this chapter, a referenced section or subsection preceded by bracketed annotations have the following meaning:

- (1) [Add] - indicates the addition to the adopted referenced standard.
- (2) [Amd] - indicates the substitution in the adopted referenced standard.
- (3) [Del] - indicates the deletion of this section or subsection from the adopted referenced standard.

b. Referenced Code and Standards.

- (1) Any reference to a model code adopted within chapter 4, shall mean as amended by this chapter.
- (2) The codes and standards referenced within the body of the model codes adopted shall be considered part of the code requirements to the prescribed extent of each such reference, except that:
 - (a) references to the International Fuel Gas Code shall be considered references to requirements of NFPA 54, National Fuel Gas Code, NFPA 56, Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems and NFPA 58, Liquefied Petroleum Gas Code;
 - (b) references to the following NFPA standards shall be considered references to the version noted:

NFPA 2 Hydrogen Technologies Code, 2011 Ed.

NFPA 10 Standard for Portable Fire Extinguishers, 2013 Ed.

NFPA 12 Standard on Carbon Dioxide Extinguishing Systems, 2011 Ed.

NFPA 13 Standard for the Installation of Sprinkler Systems, 2013 Ed.

NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and

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| | Manufactured Homes, 2013 Ed. |
| NFPA 13R | Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies, 2013 Ed. |
| NFPA 14 | Standard for the Installation of Standpipe and Hose Systems, 2013 Ed. |
| NFPA 15 | Standard for Water Spray Fixed Systems for Fire Protection, 2012 Ed. |
| NFPA 16 | Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, 2015 Ed. |
| NFPA 17 | Standard for Dry Chemical Extinguishing Systems, 2013 Ed. |
| NFPA 17A | Standard for Wet Chemical Extinguishing Systems, 2013 Ed. |
| NFPA 20 | Standard for the Installation of Stationary Pumps for Fire Protection, 2013 Ed. |
| NFPA 22 | Standard for Water Tanks for Private Fire Protection, 2013 Ed. |
| NFPA 25 | Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2014 Ed. |
| NFPA 30 | Flammable and Combustible Liquids Code, 2018 Ed. |
| NFPA 30A | Code for Motor Fuel Dispensing Facilities and Repair Garages, 2018 Ed. |
| NFPA 31 | Standard for the Installation of Oil-Burning Equipment, 2011 Ed. |
| NFPA 34 | Standard for Dipping and Coating Processes Using Flammable or Combustible Liquids, 2015 Ed. |
| NFPA 37 | Stationary Combustion Engines & Gas Turbines 2014 Ed |
| NFPA 51 | Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes, 2013 Ed. |
| NFPA 51B | Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, 2014 Ed. |
| NFPA 52 | Vehicular Gaseous Fuel Systems Code, 2013 Ed. |
| NFPA 54 | National Fuel Gas Code 2015 Ed |
| NFPA 55 | Compressed Gases and Cryogenic Fluids Code, 2013 Ed. |
| NFPA 56 | Standard for Fire & Explosion Prevention During Cleaning & Purging of Flammable Gas Piping Systems, 2014 Ed |
| NFPA 58 | Liquefied Petroleum Gas Code 2014 Ed. |
| NFPA 59 | Utility LP-Gas Plant Code, 2015 Ed. |
| NFPA 59A | Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG), 2013 Ed. |
| NFPA 70 | National Electrical Code® 2017 Ed |
| NFPA 72 | National Fire Alarm Code 2013 Ed |
| NFPA 75 | Standard for Protection of Information Technology Equipment, 2013 Ed. |
| NFPA 76 | Standard for the Fire Protection of Telecommunications Facilities, 2012 Ed. |
| NFPA 80 | Standard for Fire Doors and Other Opening Protectives, 2013 Ed. |
| NFPA 82 | Standard on Incinerators and Waste and Linen Handling Systems and Equipment, 2014 Ed. |
| NFPA 85 | Boiler and Combustion Systems Hazards Code, 2015 Ed. |
| NFPA 88A | Parking Structures 2015 Ed |
| NFPA 90A | Air-Conditioning and Ventilating Systems 2015 Ed |
| NFPA 90B | Warm Air Heating and Air-Conditioning Systems 2015 Ed |
| NFPA 91 | Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids, 2010 Ed. |
| NFPA 92 | Standard for Smoke Control Systems, 2015 Ed. |
| NFPA 96 | Standard on Ventilation Control and Fire Protection of Commercial Cooking Operations, 2014 |
| NFPA 99 | Health Care Facilities Code, 2015 Ed. |
| NFPA 102 | Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures, 2011 |

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| NFPA 105 | Standard for Smoke Door Assemblies and Other Opening Protectives, 2013 Ed. |
| NFPA 110 | Standard for Emergency and Standby Power Systems, 2013 Ed. |
| NFPA 111 | Standard on Stored Electrical Energy Emergency and Standby Power Systems, 2013 Ed. |
| NFPA 140 | Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations, 2013 Ed. |
| NFPA 160 | Standard for the Use of Flame Effects Before an Audience, 2011 Ed. |
| NFPA 170 | Standard for Fire Safety and Emergency Symbols, 2015 Ed. |
| NFPA 204 | Standard for Smoke and Heat Venting, 2015 Ed. |
| NFPA 211 | Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, 2013 Ed. |
| NFPA 220 | Standard on Types of Building Construction, 2015 Ed. |
| NFPA 221 | Standard for High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls, 2015 Ed. |
| NFPA 232 | Standard for the Protection of Records, 2012 Ed. |
| NFPA 241 | Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2013 Ed. |
| NFPA 252 | Standard Methods of Fire Tests of Door Assemblies, 2012 Ed. |
| NFPA 253 | Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, 2015 Ed. |
| NFPA 257 | Standard on Fire Test for Window and Glass Block Assemblies, 2012 Ed. |
| NFPA 259 | Standard Test Method for Potential Heat of Building Materials, 2013 Ed. |
| NFPA 326 | Standard for Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair, 2010 Ed. |
| NFPA 400 | Hazardous Materials Code, 2013 Ed. |
| NFPA 407 | Standard for Aircraft Fuel Servicing, 2012 Ed. |
| NFPA 484 | Standard for Combustible Metals, 2015 Ed. |
| NFPA 495 | Explosive Materials Code, 2013 Ed. |
| NFPA 498 | Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives, 2013 Ed. |
| NFPA 501 | Standard on Manufactured Housing, 2013 Ed. |
| NFPA 501A | Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities, 2013 Ed. |
| NFPA 601 | Standard for Security Services in Fire Loss Prevention, 2010 Ed. |
| NFPA 664 | Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, 2012 Ed. |
| NFPA 703 | Standard for Fire Retardant-Treated Wood and Fire Retardant Coatings for Building Materials, 2015 Ed. |
| NFPA 704 | Standard System for the Identification of the Hazards of Materials for Emergency Response, 2012 |
| NFPA 720 | Standard for the Installation of Carbon Monoxide Detection and Warning Equipment, 2015 |
| NFPA 750 | Standard on Water Mist Fire Protection Systems, 2014 Ed. |
| NFPA 801 | Standard for Fire Protection for Facilities Handling Radioactive Materials, 2013 Ed. |
| NFPA 909 | Code for the Protection of Cultural Resource Properties – Museums, Libraries, and Places of Worship, 2013 Ed. |
| NFPA 914 | Code for Fire Protection of Historic Structures, 2010 Ed. |
| NFPA 1124 | Standard for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, 2006 Ed. |
| NFPA 1126 | Standard for the Use of Pyrotechnics Before a Proximate Audience, 2011 Ed. |
| NFPA 1142 | Standard on Water Supplies for Suburban and Rural Fire Fighting, 2012 Ed. |
| NFPA 1194 | Standard on Recreational Vehicle Parks and Campgrounds, 2014 Ed. |
| NFPA 1600 | Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs, 2016 Ed. |
| NFPA 1963 | Standard for Fire Hose Connections, 2014 Ed. |
| NFPA 2001 | Standard on Clean Agent Fire Extinguishing Systems, 2015 Ed. |

NFPA 2010 Standard for Fixed Aerosol Fire Extinguishing Systems, 2015 Ed.

§ 2. Amendments to the 2015 International Fire Code

- a. [Reserved]

§ 3. Amendments to the 2015 Life Safety Code (NFPA 101)

- a. [Reserved]

§ 4. Amendments to the 2015 Uniform Fire Code (NFPA 1)

- a. [Reserved]

TITLE 4. ZONING REGULATIONS

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|----------------------------|--|
| | TCR121707-10 of 17 | Amended TCR052996-09 and adoption 14 M.P.T.L, Ch. 16 “Zoning.” |
| | TCR111109-01 of 01 | Added provisions for small wind turbines. |
| | TCR011013-02 of 03 | Ratified CPCR102612-01, resolving that Regulation drafted in accordance with the approved conceptual changes would be effective upon approval by the Committee (CPC09132013-01 of 01) and LUC (LU-13-135). |
| 20-Jun-14 | LU-14-079 | Codified Zoning as Title 4 of Land Use Regulations. |
| | TCR092514-12 of 15 | Approved Tattoo Shops as a Permitted Use in the Resort Operation Zone. |
| | TCR090816-07 of 09 | Authorized ½ acre lots and specified applicable requirements for those lots. |
| 16-Nov-16 | TCR111016-02 of 07 | Amended the requirements (Ch. 7, §2d) for Manufactured Homes (Permanent). |
| 30-Nov-17 | TCR113017-02 of 07 | Amended to address blight & clarify subdivision lot sizes (LUC-18-501). |
| 28-Oct-20 | TCR102220-16 of 16 | Change to Home Occupations at Ch. 7, §2f(1) |

TITLE 4. ZONING REGULATIONS

CHAPTER 1. PURPOSE AND DEFINITIONS

§ 1. Purpose

These regulations are intended to collectively promote the health, safety, morals, and welfare of the Tribe. Further, they are intended to preserve and protect the investment that tribal members make in their homes, assure a quality of life for this and future generations of the Tribal Nation, while seeking to ensure the proper use of land for residential, community, environmental, cultural, and economic activities.

§ 2. Definitions

a. For the purposes of this Title all terms, unless otherwise indicated or required by context, shall have the meaning defined within this section. Use of the singular shall also include the plural.

b. Definitions

- (1) “Accessory” means a structure customarily incidental and subordinate to a principal building, structure, located on the same lot, including solar panels and attached garages.
- (2) “Accessory Uses” means uses that are secondary to and normally associated with residential occupancy and are limited to residential recreation, parking, pools, and home occupations.
- (3) “Assignee” means an enrolled individual Tribal Member or enrolled Tribal Members to whom an Assignment is conveyed in accordance with the provisions of the Land Assignment Law, 27 M.P.T.L.
- (4) “Assignment” means the real property located on the Reservation to which Assignment Rights as defined in 27 M.P.T.L. are made pertinent and vested in an Assignee as provided in 27 M.P.T.L.
- (5) “Blighted Property” means any house, building, structure, premises, or property, residential and non-residential, wherein it has been determined by the Land Use Commission that at least one (1) of the following conditions exist:
 - (a) The property poses a serious or immediate threat to the health, safety, or general welfare of the community.
 - (b) The property is in a state of disrepair or is becoming Dilapidated as evidenced by at least one (1) or more of the following:
 - (i) Missing, broken or boarded up windows or doors;
 - (ii) Collapsing or missing exterior walls or roofs;
 - (iii) Structurally faulty conditions;
 - (iv) Unrepaired fire or water damage;
 - (v) Seriously damaged or missing siding;
 - (vi) Unauthorized outside storage or accumulation of junk including, but not limited to, trash, rubbish, boxes, paper, plastic, appliances, or refuse of any kind; abandoned or prolonged parking of unregistered motor vehicles, boats, motorcycles, or other machinery on the individuals exclusive use area (“EAU”) in violation of 4 L.U.R., ch. 4 on other property, or the public rights of way;
 - (vii) Contains a dumpster on EAU in excess of two (2) months, unless associated with an on-going activity permitted by the MPTN Land Use Commission;
 - (viii) Unrepaired vandalism.
 - (c) Inadequate maintenance or Dilapidated condition has materially contributed to a decline or diminution in property values on nearby properties or that substantially and unreasonably

interferes with the lawful use and enjoyment of other premises within the surrounding community.

- (d) The Fire Marshal has determined that a building, structure, or condition is a fire hazard in accordance with 3 L.U.R. Fire Prevention Code.
- (e) The Code Official has determined there is a violation of the International Property Maintenance Code portion of the Mashantucket Building Code (2 L.U.R., ch. 5, §4).
- (6) “Dilapidated” means any building or structure or part thereof which is deemed an unsafe structure as defined in the applicable building codes, as amended, or any dwelling or unit which is unfit for human habitation as defined by any applicable Health Code.
- (7) “Duplex” means a Structure consisting of two living units with a common wall and used for residential purposes.
- (8) “Dwelling” means a building or portion thereof, designed and used for residential occupancy with facilities for sleeping, bathing and cooking. A structure attached to a Dwelling by a covered passageway, or having a wall or part of a wall in common, shall be considered part of the Dwelling.
- (9) “Exclusive Use Area” (“EUA”) means an area that is solely associated with a Dwelling that is used by the Assignee.
- (10) “Home Occupation” means a legal occupation, not otherwise permitted in the zone, which is clearly accessory and secondary to the residential use of the Dwelling and conducted by at least one member of the family residing on the premises.
- (11) “In-law Apartment” means a separate dwelling unit located within a single-family dwelling that is subordinate in size to the single-family Dwelling built in a manner which maintains the appearance of the building as a single-family Dwelling.
- (12) “Manufactured Home” means a structure transportable in one or more sections which, in the traveling mode, is eight (8) feet or more in width or forty (40) feet or more in length or, when erected on site, is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a Dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air-conditioning and electrical systems contained therein. This term includes mobile homes.
- (13) “Residential Lot” means a residential parcel assigned to a Tribal Member under the terms of the Land Assignment Law encoded in Title 27 of the Mashantucket Pequot Tribal Laws.
- (14) “Structure” means anything constructed or erected which requires location on the ground or attachment to something having location on the ground.
- (15) “Temporary Dwelling” means a Dwelling used for less than five (5) years, during which time the occupant is planning to construct a permanent Dwelling.
- (16) “Wind Energy System” means a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 50 kilowatts (kW) and which is intended to primarily reduce on-site consumption of utility power.
- (17) “Zoning Map” means the map adopted by Tribal Council Resolution and maintained in the Department of Public Works, Community Planning & Property Management, with a copy maintained in the Office of Legal Counsel and published on the Mashantucket Pequot Tribal Laws website (www.mptnlaw.com).

CHAPTER 2. PERMITTED USES

§ 1. Resort Operation Zone

- a. Resort Operation activities are permitted in designated areas on the Zoning Map.
- b. All such activities are in support of and operated by the Mashantucket Pequot Gaming Enterprise, or are otherwise approved by Tribal Council.
- c. General uses allowed in the Resort Operation Zone:
 - (1) Gaming activities and associated hotel, restaurant, entertainment, and support facilities;
 - (2) Full retail services;
 - (3) Gas station operations; and,
 - (4) Parking.
- d. Uses specifically permitted by Tribal Council Resolution:

Tattoo Shop and Ancillary Retail Operations – TCR092514-12 of 15
- e. Activities that are not within the generally allowed uses or which have not been approved by Tribal Council shall require a Variance.

§ 2. Government Operations Zone

- a. Governmental activities on the Reservation are permitted in designated areas on the Zoning Map.
- b. All such activities are subject to approval by the Tribal Council.
- c. General uses allowed in the Government Operations Zone:
 - (1) Administrative offices;
 - (2) Museum;
 - (3) Public Safety;
 - (4) Public Works;
 - (5) Health Clinic; and,
 - (6) PRxN.
- d. Activities that are not within the generally allowed uses or which have not been approved by Tribal Council shall require a Variance.

§ 3. Conservation Zone

- a. No Land Use permits or Variances will be issued in the Conservation Zone.
- b. The Conservation Zone includes:
 - (1) Those areas designated by Tribal Council for non-development; and,
 - (2) Archeological sites.

§ 4. Pequot Cemetery

- a. Two areas have been set aside for the burial of tribal members, as designated on the Zoning Map.
- b. The Tribal Council may authorize one or more “community uses” for the benefit of Tribal Members. An example of a “community use” in the area zoned for the cemetery is the Spiritual Center.

§ 5. Residential Zone

- a. Single-Family Dwellings not to exceed one (1) such Dwelling per lot.
- b. Duplexes located on lots fronting Joseph Williams Drive or within other areas as designated by Tribal Council. Not to exceed more than one (1) such Dwelling per lot.
- c. Temporary Dwellings.
- d. Accessory Buildings, Structures, and Uses
 - (1) Buildings and Structures accessory to principal uses permitted under these Regulations.
 - (2) The following uses are permitted in the Residential Zone as accessory uses to a single-family Dwelling:
 - (a) In-Law Apartment
 - (b) Home Occupation
- e. Temporary Trailers
- f. The Tribal Council may authorize one or more “community uses” for the benefit of Tribal Members. Examples include, but are not limited to: Community Center, parks, playgrounds, a Post Office, schools, and child care.
- g. Any other use specifically authorized by a Variance issued pursuant to the requirements of Chapter 10 of this Regulation.

CHAPTER 3. RESORT ZONE REQUIREMENTS

[RESERVED]

CHAPTER 4. GOVERNMENT ZONE REQUIREMENTS

[RESERVED]

CHAPTER 5. CONSERVATION ZONE REQUIREMENTS

[RESERVED]

CHAPTER 6. PEQUOT CEMETERY REQUIREMENTS

[[RESERVED]]

CHAPTER 7. RESIDENTIAL ZONE REQUIREMENTS**§ 1. Dimensional Requirements**

- a. Each residential parcel shall be issued as an Assignment to a Tribal Member pursuant to 27 M.P.T.L., the Land Assignment Law, and shall have an Exclusive Use Area (“EUA”) solely associated with the Dwelling that is used only by the Assignee.
 - (1) The director of the Tribal Government department responsible for Community Planning, the Tribal Planner, shall propose subdivision of assignment areas into individual EUAs.
 - (2) When subdividing an assignment area, or subsequently proposing modification to an established unassigned EUA, the Planner shall take into account:
 - (a) site conditions which could impact the practicability of constructing a dwelling;
 - (b) patterns of current and prior use that reasonably appear to have been in place for five years or longer; and,

- (c) the requirement that each EUA must retain at least 25% of the area as undisturbed natural vegetation - TRC060398-03 of 05.
- (3) All EUAs proposed shall consist of either “One-acre” or “Half-acre” sized lots.
 - (a) “One-acre” lots - The EUA shall not be less than thirty thousand (30,000) square feet and not exceed eighty thousand (80,000) square feet.
 - (b) “Half-acre” lots - The EUA shall not be less than fifteen thousand (15,000) square feet.
- b. Setback
 - (1) One-acre lots - No Dwelling or Accessory structure shall be within twenty-five (25) feet of a side or rear line of an EAU, or from the street line.
 - (2) Half-acre lots - No Dwelling or Accessory structure shall be within ten (10) feet of a side or rear line of an EAU, or twenty (20) from the street line.
 - (3) Temporary Dwellings shall be located on the EUA so as not to impede the future construction of a permanent Dwelling. No Temporary Dwelling shall be within ten (10) feet of a side or rear line of an EUA.
 - (4) Guy wire anchors and Accessory facilities for Wind Energy Systems shall extend no closer than ten (10) feet to an Assignment line.
 - (5) All property abutting or including a wetland or watercourse shall maintain an area of open land of at least fifty (50) feet in width along the entire frontage of such wetland or watercourse. No structures are permitted in this area.
- c. Dwelling, Manufactured Home, In-Law Apartment Sizes
 - (1) All permanent Dwellings shall have a minimum living space of five hundred (500) square feet and a maximum of four thousand (4,000) square feet.
 - (2) All Manufactured Homes shall consist of three (3) standard units or less (e.g., two standard units is a “double-wide” trailer).
 - (3) The total footprint of an Accessory structure shall not exceed two hundred (200) square feet for every ten thousand (10,000) square feet of the total EUA on which it is to be constructed.
- d. Maximum Height – Structures, Dwellings, Fences, and Wind Energy Systems
 - (1) Permanent Dwellings shall have no portion of the structure greater than thirty-five (35) feet in height as measured from the average grade within ten (10) feet of the front door to the Dwelling.
 - (2) No Accessory Structure shall have a height greater than the distance between it and the nearest Assignment line to guard against such structure from falling onto an adjacent property.
 - (3) No fence shall be higher than eight (8) feet.
 - (4) A Variance is required prior to erecting a Wind Energy System. The Community Planning Committee (CPC) will consider topography, tree height, proximity to other Dwellings, and soil stability when determining the allowable height.
- e. Exemptions

Structures such as chimneys, flues, spires, and radio and TV antennas, and other wireless telecommunications antennas may extend an additional ten (10) feet in height as measured from the highest point of a Structure’s existing and/or proposed roof line.

§ 2. Principal and Accessory Standards and Restrictions

a. All mechanical equipment or other utility hardware on the roof, ground, or Accessory Structures shall be located so as to not be visible from any public ways or screened from public view with materials harmonious with the building.

b. Permanent Dwellings - All Permanent Dwellings shall:

- (1) Be affixed to a poured concrete foundation;
- (2) Utilize building materials that are industry-compliant materials meeting building codes adopted by the Mashantucket Pequot Tribal Nation Land Use Commission;
- (3) Have building components, such as windows, doors, eaves, and parapets, with good proportions and relationships to one another;
- (4) Utilize the Mashantucket Pequot Tribal Nation sewer and water infrastructure when a street connection is available;
- (5) Trench all utility connections with proper separation distances maintained, unless the provided utility is overhead at the street;
- (6) Have fuel tanks located in basements or in approved structures above ground;
- (7) Not have outdoor wood-burning furnaces; and,
- (8) Have a storage structure with adequate storage for outdoor maintenance equipment and recreational vehicles, if the Dwelling does not have a walkout basement or a garage.

c. In-Law Apartments

- (1) Only one (1) in-law apartment shall be created on each EUA;
- (2) The apartment shall be clearly attached to the single-family Dwelling
 - (a) The Apartment shall be contained within or attached to the Dwelling (e.g., as an addition or wing); or,
 - (b) If the Apartment is located in the basement of the Dwelling, it may consist of the entire basement.
- (3) Only one (1) kitchen shall be permitted within the Apartment.

d. Manufactured Homes (Permanent)

- (1) All Manufactured Homes shall, at minimum:
 - (a) Have, for homes built after June 15, 1976, an affixed label certifying conformance with the federal Manufactured Home Construction Safety Standards;
 - (b) Be located on a leveled concrete pad or suitably prepared (e.g., organics removed, soils compacted and vapor barrier installed) crushed stone base;

The site shall be graded to ensure that storm run-off is directed away from the unit;
 - (c) Be leveled and blocked in accordance with the manufacturer's specifications;
 - (d) Be properly anchored to the ground by a system certified to withstand code-required wind force loading;
 - (e) Be skirted around the base of the unit;
 - (i) The skirting shall extend to and be in contact with the ground; and,
 - (ii) All piped utilities shall enter the Dwelling from within the skirted base and be protected from freezing by heat tape and insulation or other method approved by the Director of Utilities or his designee.
 - (f) Trench all utility connections with proper separation distances maintained, unless the provided utility is overhead at the street;

- (g) The EUA must have a storage structure with adequate storage for outdoor maintenance equipment and recreational vehicles.
- (2) Manufactured Homes purchased new must be constructed and installed in conformance with all criteria specified by Housing and Urban Development (HUD) for eligibility with the Section 184 Indian Housing Loan Program. In general, the unit:
 - (a) Must not have been installed or occupied previously at any other site or location;
 - (b) Shall meet the minimum home size of 570 sqft;
 - (c) Shall be installed on a permanent foundation that meets or exceeds the applicable requirements specified within the most current Permanent Foundation Guide for Manufactured Housing approved by HUD. For example:
 - (i) There must be a properly enclosed crawl space with a continuous permanent foundation-type construction.
 - (ii) There must be adequate skirting and insulation around the perimeter to prevent the crawl space area from freezing and allow proper ventilation of the crawl space.
 - (iii) The axles and tongue must be removed from the unit.
 - (iv) A licensed installer or the manufactured home dealer must sign a Warranty of Substantial Completion, HUD 92544, for the foundation; and,
 - (d) Shall be located so that the finished grade elevation beneath the manufactured home or, if a basement is used, the lowest exterior grade adjacent to the perimeter enclosure, must be at or above the 100-year return frequency flood elevation.
- e. Home Occupations - Home Occupations are permitted with the following restrictions:
 - (1) The occupation shall occur wholly within an enclosed building;
 - (2) Only twenty-five (25) percent of the gross floor area in the Dwelling may be used in such occupation; and,
 - (3) All advertising displays located on the EUA for the occupation shall not exceed one and one-half (1 ½) square feet
- f. Prohibited Home Occupations
 - (1) Those occupations which create nuisances, including noise, glare, odor; or that generate pedestrian or vehicular traffic beyond that which is normal to the particular neighborhood;
 - (2) On-site automotive repair or service (other than cleaning or detailing);
 - (3) Painting of vehicles, trailers, boats, or machinery;
 - (4) Pest control;
 - (5) Veterinary services; or,
 - (6) Any boarding of animals.
- g. Agriculture - No farming or raising of livestock may be carried on in a Residential Zone, except as follows:
 - (1) This does not apply to family gardens;
 - (2) Small animal husbandry for non-commercial use is permitted, subject to the following restrictions:
 - (a) On a lot of less than one (1) acre, the following livestock may be kept:
 - (i) A maximum of fifteen (15) small animals consisting of hens, capons, and rabbits only;
 - (ii) One (1) sheep; or,
 - (iii) One (1) goat.

- (b) On a lot containing more than one (1) acre, a maximum of two (2) of the following animals per acre are permitted:
 - (i) One (1) animal whose mature body weight is 500 pounds or more, such as a horse or cow;
 - (ii) Three (3) animals whose mature weight falls within the range of 30-500 pounds, such as sheep and goats, but excluding pigs; and,
 - (iii) Fifteen (15) animals with a mature body weight of thirty (30) pounds, such as poultry, fowl, and rabbits.
- (c) On a lot containing more than one (1) acre, one (1) pig is permitted for every two (2) acres. No pigsty shall be built or maintained on marshy ground or land subject to overflow, nor within three hundred (300) feet of any inhabited Dwelling.

h. Wind Energy Systems

- (1) Wind Energy Systems (WES) shall be allowed as an Accessory Use subject to the following requirements:
 - (a) A maximum of one (1) wind turbine and one (1) tower is permitted on a EUA.
 - (b) The WES shall be certified as compliant with the American Wind Energy Association standards;
 - (c) Applications for a WES shall include:
 - (i) Standard drawings of the wind turbine structure and stamped by an engineer of the tower, base, footings, and foundation;
 - (ii) A line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code; and,
 - (iii) Evidence that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator.
 - (d) For standard soil conditions (not including gravel, sand, or muck) foundations developed by an engineer are required;
 - (e) The WES shall adhere to the height requirements as set forth in § 8(d) of these Regulations;
 - (f) The WES shall adhere to the noise requirements as set forth in § 10 of these Regulations;
 - (g) All WES shall adhere to the substantive requirements of Part 77 of the Federal Aviation Regulation (14 C.F.R. Part 77);
 - (h) All signs, other than the manufacturer's or installer's identification, appropriate warning signs, or owner identification on a wind generator, tower, building, or other structure associated with a WES visible from any public road is prohibited; and,
 - (i) Any climbing foot pegs or rungs below twelve (12) feet of a freestanding tower shall be removed to prevent unauthorized climbing. For latticed or guyed towers, sheets of metal or wood shall be fastened to the bottom of the tower such that it cannot be readily climbed.
- (2) Inoperable WES. If a WES is inoperable for six (6) consecutive months, the owner shall be notified that he must, within six (6) months of receiving the notice, restore the system to operating condition. If the owner(s) fail to restore the system to operating condition within that timeframe, then the owner shall be required, at his own expense, to remove the WES.
- (3) Removal of WES. At the time of removal, the wind facility site shall be restored to the state it was in before the facility was constructed. More specifically, removal shall consist of:
 - (a) physical removal of all wind turbines, structures, equipment, security barriers and transmission lines from the site;

- (b) disposal of all solid and hazardous waste in accordance with local and state waste disposal regulations; and,
- (c) stabilization or re-vegetation of the site as necessary to minimize erosion.

§ 3. Supplemental Requirements

a. Yards and Fences

- (1) Corner lot – no fence or other similar structure shall be erected and no hedge, shrub, tree, or other obstruction shall be maintained that constitutes a hazard to traffic by impairing the view.
- (2) Fences, and walls used as a fence, shall be considered an Accessory and where fences are placed within ten (10) feet of an EUA line, the finished side of the fence shall face the neighboring property. In most cases, the finished side of a fence shall be the side opposite the fence post.
- (3) The clearing of native vegetation must be reviewed and approved as specified in the Tribal Land Clearing Regulation, Title 7 of Land Use Regulations.
- (4) No accumulations of debris that attracts pests shall be stored on the premises.
- (5) Nothing beyond small quantities of common household hazardous waste shall be stored on any premises.

b. Parking

- (1) Minimum Parking Spaces. At least two (2) off-street parking spaces shall be available for each Dwelling.
- (2) Maximum Parking Spaces. No more than four (4) ungaraged, motorized, highway vehicles may be routinely or permanently parked at a Dwelling. No more than two (2) commercial vehicles may be parked on an EUA.
- (3) Common driveways. Driveways serving more than one (1) single-family Dwelling must be approved in advance by the Land Use Commission. The following factors must be met before a permit will be issued:
 - (a) The common driveway shall assure adequate access for emergency and public safety vehicles including, but not limited to, the ability to turn around in all seasons, and access to fire hydrants, if available.
 - (b) The common driveway shall provide for the adequate draining of surface waters.
 - (c) A declaration of perpetual covenants, easements, and restrictions for the use and maintenance of the common driveway shall be submitted to the Land Use Commission. The declaration shall address, at a minimum, maintenance, snow plowing, and restrictions against the future use of the driveway as a public way.

c. Common Driveways - In the interest of public safety, the Land Use Commission may require the common driveway to be officially named, clearly identified with appropriate signage, and that all residences sharing the driveway to use this information in their addresses.

d. Lighting - No interior or exterior lighting shall be of such intensity, or located or directed in such a way, as to produce glare or discomfort on public streets or neighboring property.

e. Noise

- (1) Between 7 AM and 8 PM, noise level shall not exceed 75 decibels.
- (2) Between 8PM and 7 AM, noise levels shall not exceed 45 decibels.

f. Recreational Vehicles - A maximum of two (2) recreational vehicles may be parked or stored outside on an EUA, provided that such vehicle is owned or leased by a permanent resident of the property on which it is parked.

g. Temporary Dwellings (Residential).

- (1) Temporary Dwellings are only allowed on an EUA for:
 - (a) The use of Assignees who intend to construct a permanent Dwelling within five (5) years. No Temporary Dwelling shall remain on the EUA for longer than five (5) years, unless the Land Use Commission has granted an extension; or,
 - (b) Residential purposes by the Assignment holder(s) during an emergency (e.g., fire or other catastrophes).
- (2) Manufactured Homes may be used as a Temporary Dwelling provided that it complies with the requirements set out in § 2d. of this Chapter.
- (3) Travel trailer (campers) may be used as a Temporary Dwelling provided that:
 - (a) It is designed specifically for cold weather camping or the equivalent winterization has been completed and is approved by the Mashantucket Pequot Tribal Nation's Director of Utilities;
 - (b) It is located on a leveled concrete pad or suitably prepared (organics removed and soils compacted) crushed stone base, it is leveled and blocked consistent with the manufacturer's recommendations;
 - (c) It is properly anchored to the ground by a system certified to withstand code-required wind force loading;
 - (d) It is connected to the Mashantucket Pequot Tribal Nation's sewer and water infrastructure;
 - (e) Utilities are connected with permanent-type connections approved by the Mashantucket Pequot Tribal Nation's Director of Utilities;
 - (f) Unless the provided utility is overhead at the street, via buried trenches and appropriate separation; and
 - (g) Exiting the ground beneath the trailer or, for wire connections, are conveyed underground to and from a panel board.
 - (h) It is skirted around the base of the unit to extend to and be in contact with the ground.
 - (i) All piped utilities shall enter the travel trailer from below the skirted base and be protected from freezing by the use of heat tape and insulation or other methods approved by the Mashantucket Pequot Tribal Nation Director of Utilities.
 - (j) The EUA must have a storage structure with adequate storage for outdoor maintenance equipment and recreational vehicles.

h. Temporary Dwellings (Construction Office) - A Temporary Dwelling serving as a construction office shall not be placed on the EUA prior to commencing construction of a Dwelling unless the Land Use Commission has approved a plan and the proper safeguards have been taken as to placement.

i. Signage

- (1) Each residential property shall be identified by a street number posted in a visible location within five (5) feet of the vehicular access point to the property and no less than four (4) inches in height;
- (2) Residential property identification signage shall not exceed six (6) square feet; and,
- (3) Signs within the residential zone shall not be internally illuminated.

§ 4. Blight

a. Creation or Maintenance of a Blighted Property Prohibited. No owner, agent, tenant and/or person (hereinafter "Owner") responsible for the care, maintenance and/or condition of real property shall cause or allow any Blighted Property to be created, maintained or continued.

b. Notice of Violation.

- (1) The Land Use Commission shall serve written notice to an Owner responsible for the Blighted Property.
 - (a) The notice may be hand delivered or mailed by certified mail, return receipt requested, to the address of the Owner as on file with the Tribal Clerk's Office or Housing Department, or any of the persons identified above; or
 - (b) In the case of an Owner whose address is unknown, by publishing a copy of such notice in a Tribal communication having a circulation in the Mashantucket Pequot Tribal Nation.
 - (c) If the notice is mailed only to one of the responsible parties, it shall in no way be, or be construed to be, a release of any other responsible party.
 - (d) If there is more than one responsible party identified in the notice, the responsibility for complying with the notice shall be joint and several.
- (2) Notwithstanding anything to the contrary, the notice shall state:
 - (a) The violation;
 - (b) The steps needed to be taken to remedy the violation;
 - (c) A demand for abatement within thirty (30) calendar days;
 - (d) The potential fines that would be due, and that any unpaid fines may result in the Owner being denied a Certificate of Residency; and
 - (e) That if the Owner fails to adequately abate the condition(s), MPTN may cause or take such action as is necessary to correct such violation at Owner's costs and expense as provided by 4 L.U.R. ch. 7 § 4(e).
- (3) If the Owner fails to correct the violation(s), the Land Use Commission may issue an Enforcement Citation as specified herein.

c. Exceptions/Special Consideration. This section shall apply to all residential dwelling units and nonresidential space except any Blighted Property for which an application is pending before, or a permit has been issued by, the Land Use Commission, provided that said exception is only applicable when: (i) the intent of the activity is to mitigate existing conditions of blight, or (ii) the blight condition is a result of the activity, is typical of conditions expected at a well maintained construction site, and limited to the period specified on the permit application

d. Enforcement Citation. If any violation remains unabated after thirty (30) days, the Administrator may issue a citation to the violator in accordance herewith. The citation will require payment of a fine of Fifty (\$50.00) Dollars for each thirty (30) day period that a violation continues and shall require payment within thirty (30) days from the issuance thereof.

e. Government Abatement. In the event any Owner shall fail to abate or correct any violation specified in any notice, after the issuance of an Enforcement Citation for such failure, which citation has become final through the failure of such Owner to appeal from the issuance of said citation, or by such appeal being sustained by the Land Use Commission, MPTN may cause or take such action as is necessary to correct such violation. MPTN may recover all costs and expenses incurred and deduct the amounts owed from any funds that may be payable by MPTN to the individual.

f. Recording Lien. Abatement costs and expenses, and any unpaid fines, shall each constitute liens upon the property, and notice of each such lien shall be filed with the Office of the Tribal Clerk.

g. Certificate of Residency. The Land Use Commission shall give the Tribal Clerk notice of all Blighted Property that remains unabated after a citation has been issued, and all unpaid past due fines for violations herein. The Tribal Clerk shall not issue a Certificate of Residency until and unless all fines and liens are satisfied and all Blighted Property subject to a citation is remediated.

CHAPTER 8. ENVIRONMENTAL STANDARDS

- a. The Mashantucket Pequot Tribal Nation's Department of Natural Resource Protection shall review all plans for their impact on the natural resources of the Mashantucket Pequot Tribal Nation Reservation;
- b. All storm water discharges from point sources shall be evaluated and attenuated to the degree possible so as not to increase flooding on downstream property. An Engineer shall review all designs and provide written comments to the Engineer of record, if any, the Department of Natural Resource Protection and the Assignment holder;
- c. Projects with a proposed activity within the "Regulated Area" as defined by the MPTN Inland Wetland and Watercourses regulation are subject to the requirements specified within that regulation;
- d. The clearing of native vegetation must be reviewed and approved as specified in the Tribal Land Clearing Regulation (7 L.U.R.); and,
- e. Prior to the excavation of any site, the Tribal Historic Preservation Officer shall review the potential for impact on cultural resources.

CHAPTER 9. PRE-EXISTING, NON-CONFORMING USES

- a. Any non-conforming use or building lawfully existing or in use at the time of the adoption of these Regulations, or any amendments thereto, may be continued;
- b. Any building so existing which was designed, arranged, intended for or devoted to a non-conforming use may be reconstructed and structurally altered, and the non-conforming use therein changed following the issuance of a Variance.

CHAPTER 10. VARIANCES

- a. Pursuant to 14 M.P.T.L. Ch. 8, the Land Use Commission may issue a Variance waiving some or all of these regulations.
- b. When a Variance is required, the Land Use Commission will table the application for a Land Use Permit pending the application for a Variance. If the Commission has not received an application for a Variance in sixty (60) days, the Land Use Permit will be denied.
- c. In determining whether to issue a Variance, the Land Use Commission will:
 - (1) Take into account the specific circumstances, if any, of the applicant;
 - (2) Take into account whether the requested Variance would impact the Tribe, Zoning Districts, or Tribal Members living in the vicinity of the applicant;
 - (3) Take into account any reports from the Zoning Officer and/or the Director of Natural Resources;
 - (4) Notify all Assignees in the vicinity of the requested Variance and the date, time, and place of the scheduled hearing;
 - (a) The applicant has the burden of showing why the Variance should be granted;
 - (b) At the hearing, the applicant shall be provided with an opportunity to present reasons why the Variance should be granted; and,
 - (c) At the hearing, those who support and oppose the requested Variance shall have an opportunity to be heard.

- d. The Land Use Commission has five (5) calendar days to issue a written decision on the Variance application.
- e. If a Variance is approved, the Land Use Commission will issue a Land Use Permit.

CHAPTER 11. LAND USE COMMISSION PERMITTING

- a. Separate zoning permits are no longer required for generally allowed uses.
- b. A Land Use Commission permit is required prior to initiating any project covered by these regulations regardless of whether a Variance is approved.
- c. To apply for a Land Use Commission permit, an application must include:
 - (1) Site plan;
 - (2) The gross floor area and the arrangement of internal spaces;
 - (3) Materials and colors;
 - (4) Architectural drawings of the building;
 - (5) Permit applications for Manufactured Homes must include required certifications of code compliance as outlined in Ch. 7., §§ 1, 2, and 3;
 - (6) Yard areas, topography, drainage, utilities, and special features;
 - (7) Proximity to adjacent property or archeological and environmental features;
 - (8) Access for vehicles and emergency providers; and,
 - (9) Any other information requested by the Land Use Commission.
- d. The Land Use Commission will provide a copy of all applications for a residential development to the Housing Department for comment. The comment period is twenty (20) calendar days. If no comments are received within 20 calendar days and no extensions have been granted, the Land Use Commission will proceed with the understanding that no comments are intended.

CHAPTER 12. EXEMPTIONS

Culturally significant structures, such as wetus, are exempt from these zoning provisions other than the setback provisions for Accessory structures, provided that they are constructed utilizing traditional methods.

CHAPTER 13. ENFORCEMENT

The Land Use Commission shall enforce these regulations pursuant to 14 M.P.T.L. Ch. 9.

CHAPTER 14. APPEALS

A permit applicant or individual who has received an enforcement action has a right to appeal a decision by the Land Use Commission as outlined in 14 M.P.T.L. Ch. 10.

CHAPTER 15. AMENDMENTS

Pursuant to 14 M.P.T.L. Ch. 4., the Land Use Commission, in conjunction with the Community Planning Committee, may promulgate and amend regulations.

TITLE 5. INLAND WETLANDS AND WATERCOURSES REGULATION

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|---------------------------------|---|
| 20-Jun-14 | TCR061997-01 of 01 LU-14-079 | Approved of Inland Wetlands and Watercourses Regulations Codification as Title 5 of Land Use Regulations |

TITLE 5. INLAND WETLANDS AND WATERCOURSES REGULATION**CHAPTER 1. GENERAL PROVISIONS****§ 1. Declaration of Purpose**

Tribal Council Resolution, TCR061997-01 OF 01, which adopted an Inland Wetland and Watercourses Regulation declared that:

- a. The Mashantucket Pequot Tribal Nation (MPTN) is committed to preserve and protect the inland wetlands and watercourses on the Mashantucket Pequot Tribal Lands.
- b. The purpose of this Inland Wetlands and Watercourses Regulation is to regulate activities on the Mashantucket Pequot Tribal Lands that affect inland wetlands and watercourses.
- c. The goal of the Inland Wetland and Watercourses Regulation is to balance the need to protect its natural resources for future generations with the need for social and economic growth.

§ 2. Legal Authorities

- a. Federal Recognition - The Mashantucket Pequot Tribe was recognized in 1983 by Congressional legislation (Pub.L 98-134, § 9, Oct. 1St, 1983 97 Stat 855, Title 25 U.S.C.A. § 1751-1760).
- b. Tribal Authority to Regulate Inland Wetlands and Watercourses
 - (1) The Mashantucket Pequot Tribe, pursuant to its inherent sovereignty and federal law, possesses the authority for the regulation of environmental quality and sustainability within the exterior boundaries of the Mashantucket Pequot Tribal Lands.
 - (2) The Tribal Council adopted an Inland Wetland and Watercourses Regulation (IWWR) in furtherance of the sovereign right of self-governance of the Mashantucket Pequot Tribe.
 - (3) Title 14 of Mashantucket Pequot Tribal Law, the "Land Use Law," established a Land Use Commission (LUC) charged with carrying out all tasks related to the regulation of Land Use activities within Mashantucket.
 - (4) Tribal Council Resolution, TCR061997-01 OF 01 declared that the MPTN Land Use Commission, with the assistance of the Natural Resources Protection Program (NRP), shall enforce all provisions of the IWWR and shall issue and deny permits for all regulated activities that affect the inland wetland and Watercourses on the Mashantucket Pequot Tribal Lands. The NRP shall be responsible for obtaining any wetland permits for the Mashantucket Pequot Tribe and shall assist the Land Use Commission in its review of compliance with Tribal standards for activities impacting wetlands on tribally owned fee lands.
- c. Federal Authority

The scope of this regulation includes activities which may also be subject to the jurisdiction of the US Army Corps of Engineers (Corps) under Section 404 of the Federal Clean Water Act (33 U.S.C.A. § 1344), and/or the US Environmental Protection Agency (EPA) under Section 401 of the Federal Clean Water Act (33 U.S.C.A. § 1341). Compliance with this regulation does not relieve the applicant of additional obligations beyond the specific jurisdiction of the MPTN LUC.

§ 3. Applicability

Requirements of this title are applicable to any person who seeks to engage in a Land Use Activity within a Regulated Review Area.

§ 4. Definitions

a. As used in this title, all terms not defined herein will have the meaning as defined within 14 M.P.T.L. ch. 2, or the Clean Water Act. The specific interpretation of terms defined within the Clean Water Act may be subject to Corps or EPA policy, memoranda, and guidance. Further, the meaning of such terms may evolve through subsequently promulgated procedures or standards. Therefore, in the event that a term defined herein may become inconsistent with the term further defined within the Clean Water Act, or contradictory to the interpretation by Corps or EPA at that time, the current accepted meaning shall govern.

b. Definitions

- (1) "Applicant" means the Person responsible for a Land Use Activity or project or any Person designated by the Tribal Council as being responsible for completing any Land Use activities or projects.
- (2) "Commission" means the Mashantucket Pequot Tribal Land Use Commission.
- (3) "Continual Flow" means a flow of water which persists for an extended period of time; this flow may be interrupted during the low flow period of the annual hydrological cycle, June through September, but recurs in prolonged succession.
- (4) "Corps" means the United States Army Corps of Engineers.
- (5) "Critical Terrestrial Habitat" means the area within 100-750 feet of the Vernal Pool.
- (6) "Fill material" generally means, in the context of discharge of fill material, material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S. The specific meaning shall have that as defined with Title 33 CFR 323.2.
- (7) "Intermittent Watercourse" means those waterways which are characterized by non-persistent flow. For purposes of this Regulation, intermittent Watercourses are delineated by one or more of the following characteristics:
 - (a) A defined permanent channel with the evidence of scour deposits of recent alluvium or detritus.
 - (b) The presence of standing or flowing water for a duration longer than a particular storm incident. Ordinarily, the presence of water is supported by a component, however small, of ground water outflow or exfiltration.
 - (c) The presence of, or the ability to support the growth of, hydrophytic vegetation.
- (8) "Jurisdictional Wetlands" means wetlands which are also "Waters of the United States" the precise location of which shall be determined according to the following three criteria as defined by the Corps' Wetlands Delineation Manual:
 - (a) hydrophytic vegetation,
 - (b) hydric soils, and
 - (c) hydrology.

Jurisdictional wetlands include any wetland created as compensatory mitigation for an action covered by a permit from the U.S. Corps of Engineers.

- (9) “Major Activity” means any activity, including, but not limited to the following activities which may have a major effect or significant impact on the area for which an application has been filed or on another part of the inland wetland or watercourse system:
- (a) any activity involving a deposition or removal of material which will or may have a major effect or significant impact on the Regulated Review Area or on another part of the inland wetland or watercourse system;
 - (b) any activity which substantially changes the natural channel or may inhibit the natural dynamics of a watercourse system;
 - (c) any activity which substantially diminishes the natural capacity of any inland wetland or watercourse to support desirable fisheries, wildlife, or other biological life; or to open space; or to prevent flooding, supply water, assimilate waste, facilitate drainage, provide recreation or open space; or to perform other functions;
 - (d) any activity which causes a substantial turbidity, siltation, or sedimentation in a wetland or watercourse;
 - (e) any activity which may substantially diminish flow of a natural watercourse or ground water levels of the Regulated Review Area;
 - (f) any activity which causes or has the potential to materially affect the wetland environment or the health, safety, and welfare of the Tribe; or
 - (g) any activity which destroys unique wetland or watercourse areas having demonstrable scientific, cultural or educational value.
- (10) “Mashantucket” means the Mashantucket settlement lands held in fee by the Mashantucket Pequot Tribe and the property held in trust by the United States of America for the Mashantucket Pequot Tribal Nation.
- (11) “Material” means any substance, solid or liquid, organic or inorganic, including but not limited to, soil, sediment, aggregate, land gravel, clay, bog, peat, mud, 1251 et. Seq
- (12) “Natural Resources Protection Program” or “NRP” shall mean the tribal government department (formerly the NRPD) assigned the responsibility to monitor and protect natural resources and all staff within that department with experience and qualifications suitable for executing the duties necessary to fulfill that responsibility.
- (13) “Permit” means the whole or any part of any license, certificate, approval or similar form of permission which may be required of any person by provisions of this Regulation and the Land Use Law.
- (14) “Permittee” means the person to whom a Permit has been issued under the authority of the Land Use Law or this Regulation.
- (15) “Person” means any Tribal Member, Tribal employee, individual partnership, firm, company, subcontractor or contractor, corporation, association, organization, estate, governmental entity or any other legal entity or its representative, agents or assigns. Use of the singular shall also include the plural.
- (16) “Regulated Activity” means any operation within or use of a wetland or water course involving removal or deposition of material, or any obstruction, construction, alteration of such wetlands or watercourses; or any Land Use activity or project within a wetland or watercourses that has the potential to affect the wetland environment or the general health, safety, and welfare of the Tribe.
- (17) “Regulated Review Area” means any wetlands, watercourses, or buffers as defined in this regulation on the Mashantucket Pequot Tribal Lands.
- (18) “Regulated Vernal Pool” means a vernal pool within a jurisdictional wetland which has a sufficient hydroperiod necessary to support, and does support, essential breeding habitat for

fairy shrimp, marbled salamanders, spotted salamanders, or wood frogs. For the purpose of this regulation the following criteria shall be utilized to determine whether a pool supports this essential breeding habitat:

- (a) Has never been properly surveyed for the presence of obligate VP species;
 - (b) Has been surveyed only once during the VP monitoring period and shown evidence of obligate species breeding;
 - (c) Has been surveyed for three (3) consecutive years during which any of the following had been noted during any one year,
 - (i) fairy shrimp,
 - (ii) evidence of marbled salamanders, or
 - (iii) five (5) or more egg masses of wood frog or spotted salamander,
 - (d) Has been surveyed less than ten (10) but more than five (5) times during which any of the following were noted;
 - (i) fairy shrimp,
 - (ii) evidence of marbled salamanders,
 - (iii) two (2) or more surveys showed the presence of at least five (5) egg masses of either wood frog or spotted salamander, or
 - (iv) any one survey for which at least twenty (20) egg masses of either wood frog or spotted salamander were noted.
 - (e) Has been surveyed more than ten (10) times during which any of the following were noted within the most recent ten (10) surveys;
 - (i) fairy shrimp,
 - (ii) evidence of marbled salamanders,
 - (iii) four (4) or more surveys showed the presence of at least five (5) or more egg masses of either wood frog or spotted salamander, or
 - (iv) two (2) or more surveys showed the presence of at least twenty (20) or more egg masses of either wood frog or spotted salamander.
- (19) "Regulation" means this Inland Wetlands and Watercourses Regulation.
- (20) "Soil Scientist" means an individual duly qualified in accordance with standards set by the Office of Personnel Management (formerly the U.S. Civil Service Commission) or other qualified organizations employing or setting standards for qualified soil scientists.
- (21) "Tribal Council" means the governing body of the Mashantucket Pequot Tribe.
- (22) "Upland Review Area" means land areas situated within 50 feet from the boundary of any inland wetland or watercourse.
- (23) "Vernal Pool" or "VP" means a small body of standing fresh water that is most obvious in the landscape during the spring of the year. They are usually temporary in nature. In order to meet the definition of a vernal pool, a wetland must have the following physical characteristics: (1) it contains water for approximately two months during the growing season (2) it occurs within a confined depression or basin that lacks a permanent outlet stream (3) it lacks any fish population (4) it dries out most years, usually by late summer.
- (24) "VP Envelope" means the area within 100 feet of the vernal pool's edge.
- (25) "VP Survey Period" means
 - (i) 1 to 3 weeks after wood frog full chorus is heard
 - (ii) 2 to 4 weeks after the spring migration of salamanders towards pools

- (26) “Waste” means sewage or any substance, liquid, gaseous, solid or radioactive, which may pollute or tend to pollute any of the wetlands or watercourses on the Mashantucket Pequot Tribal Lands.
- (27) “Waters of the United States” means waters of the United States as defined under Title 33 CFR 328.3(a).
- (28) “Wetlands” means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas as defined under Title 33 CFR 328.3(b).
- (29) “Watercourses” are rivers, streams, brooks, water ways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, vernal or intermittent, which are contained within, flow through or border upon the Mashantucket Pequot Tribal Lands or any portion thereof. This definition does not include ephemeral waters which convey flow only during a short duration in response to a precipitation event.

CHAPTER 2. INVENTORY OF REGULATED REVIEW AREAS

§ 1. Wetland Boundaries

a. The Natural Resources Protection program shall maintain mapping of wetlands within Mashantucket and abutting property owned by MPTN. The map shall depict general boundaries for all inland wetlands and watercourses, vernal pools and the precise boundary for any previously delineated jurisdictional wetlands or regulated vernal pools.

b. The precise location of jurisdictional wetlands shall be determined according to the following three criteria: (a) hydrophytic vegetation; (b) hydric soils; and (c) hydrology as defined by the U.S. Army Corps of Engineers Wetlands Delineation Manual. Such determinations shall be made by field inspection and testing conducted by a Soil Scientist where vegetation or soil classification are required or where watercourse determinations are required, by any qualified individual(s).

c. It shall be the responsibility of the Applicant to accurately determine, map and field identify the precise boundary of any wetland.

- (1) If not previously determined, or if the Applicant chooses to confirm, the precise boundary of a wetland shall be surveyed by the Applicant.
 - (2) Survey data shall be provided to the Natural Resources Protection Program including all field sketches and delineation flag point data. Flag point data shall be furnished electronically in a form suitable for inclusion in the Programs current electronic mapping platform.
- d. The NRP shall amend its wetland map as more accurate information becomes available.
- (1) Any person may petition for an amendment to the map. Such persons shall bear the burden of proof for all requested map amendments.
 - (2) Boundaries depicted on the NRP map shall not preclude the NRP from reaching a contrary conclusion based upon the actual character of the land, or locations of wetlands or watercourses, where such factors have been demonstrated by competent evidence to be different.

§ 2. Regulated Vernal Pools

a. Factors assessed when determining whether pools are Regulated VPs vary from season to season, therefore the NRP shall provide the Applicant with all applicable survey data on file. The Applicant must utilize such data when determining the presence or absence of Regulated VPs.

b. The boundary of a Regulated VP must incorporate the mean high water level during the period of March through early April. When there is no distinct topographic edge of the pool the boundary shall be determined by:

- (1) Monitoring of the pool's high water mark weekly beginning the 1st of March and ending on the 15th of April, or
- (2) In the event that such monitoring is infeasible, the boundary of the pool shall be determined by calculating the water elevation resulting from a 2.6 inch/ 24 hour duration rainfall event projected upon the estimated seasonal high ground water elevation.

§ 3. Upland Review Area

To ensure that all land use activities with the potential to impact wetlands or watercourses receive the critical review specified within this regulation; the Regulated Review Area shall include an upland review area which shall extend 50 feet from the edge of any wetland or watercourse.

CHAPTER 3. REGULATED ACTIVITIES**§ 1. Activities Subject to Supplemental Review**

a. Except as provided in §3 of this chapter, all Land Use Activities proposed within the Regulated Review Area are subject to the provisions of this regulation.

b. The Land Use Commission, based on the written findings of the Natural Resources Protection Program, shall issue or deny permits according to the procedures of the MPT Land Use Law. The Natural Resources Protection Program shall advocate their recommendation during Commission deliberations.

§ 2. Activities Requiring Corps Permit

Projects involving placement of fill within a jurisdictional wetland also require permitting by the U.S. Army Corps of Engineers.

§ 3. Exempt Activities

Unless subject to a Corps permit, the following Land Use Activities are exempt from the additional requirements of this title:

- a. Conservation activities including, but is not limited to:
 - (1) Erosion and Sedimentation Control activities,
 - (2) Silviculture management practices specified within the MPTN Forest Management Plan or otherwise authorized by a MPTN Land Clearing Permit,

- (3) Invasive species management as specific with the MPTN Non-Native Plant Management Plan
- b. Outdoor recreation including the use of play and sporting areas, field trials, nature study, hiking, horseback riding, swimming, skin and scuba diving, camping, boating, trapping, hunting, or fishing.
- c. Temporary events which do not require excavation or the erection of permanent structures.
- d. Creation of stormwater management structures provided that the major component of such system will be a created wetland.

CHAPTER 4. SUPPLEMENTAL REVIEW REQUIREMENTS

§ 1. Submission and Processing of Permit Applications

a. Each Applicant desiring to undertake an activity specified in Chapter 4 of this regulation shall submit a Permit Application to the Land Use Commission and proceed in accordance with processes and procedures in the Land Use Law.

b. In addition to the permit application requirements specified within the Land Use Law, Applicants for an activity within a Regulated Review Area shall:

- (1) Verify the location of all wetlands, watercourses and vernal pools located within 100 feet of the proposed Land Use Activity,
- (2) Depict the regulated review area boundary, on a project site map which shows the extent of the activity,
- (3) Calculate and provide the calculated areas (in square feet) of direct and indirect impact on any Wetland/Watercourse, Upland Review Area, Regulated Vernal Pool, VP Envelope and/or Critical Terrestrial Habitat,
- (4) Provide justification, including alternative analysis, for each distinct area of impact,
- (5) Calculate the distance, if less than 500 ft. between any Regulated Vernal Pool and the closest edge of the proposed activity,
- (6) Provide recommendations for any proposed mitigation activity.

c. For good cause shown the Commission may waive or modify any of the above requirements of §1b or the Commission may require the Applicant to submit additional information if it determines that such information is necessary to properly evaluate the impact of the proposed activity.

§ 2. Permit Review Process

NRP shall review each application submitted to the Commissioner that includes a Regulated Activity as defined herein and submit written findings to the Commissioner concerning the proposed regulated activity.

§ 3. Considerations for NRP's Written Findings

- a. Criteria for Minimal Impact Activity

In carrying out the purposes of this Regulation, the Natural Resources Protection Department shall take into consideration all relevant facts and circumstances to evaluate a Land Use Activity or project that is not considered a major activity as defined by this Regulation, including but not limited to the following:

- (1) The environmental impact of the proposed action, including the effects on the inland wetland's and watercourse's capacity to support fish and wildlife, to prevent flooding, to supply and protect surface and ground waters, to control sediment, to facilitate drainage, to control pollution, to support recreational activities, and to promote public health and safety.
 - (2) The alternatives to the proposed action, including a consideration of alternatives, which might enhance environmental quality or have a less detrimental effect, and which could feasibly attain the basic objectives of the activity proposed in the application. This consideration should include, but is not limited to, the alternative of requiring actions of different nature which would provide similar benefits with different environmental impacts, such as using a different location for the activity.
 - (3) The relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity, including consideration of the extent to which the proposed activity involves trade-offs between short-term environmental gains at the expense of long-term losses, or vice versa, and consideration of the extent to which the proposed action forecloses or predetermines future options.
 - (4) Irreversible and irretrievable commitment of resources which would be involved in the proposed activity. This requires recognition that the inland wetlands and watercourses of the Mashantucket Pequot Tribe are an indispensable, irreplaceable and fragile natural resource, and that these areas may be irreversibly destroyed by deposition, filling, or removal of material, by the diversion, diminution or obstruction of water flow including low flows, and by the erection of structures and other uses.
 - (5) The character and degree of injury to, or interference with safety, health or the reasonable use of property which is caused or threatened by the proposed activity, or the creation of conditions which may do so. This includes recognition of potential damage from erosion, turbidity, or siltation, loss of fish and wildlife and their habitat, loss of unique habitat having demonstrable natural, scientific, cultural or educational value, loss or diminution of beneficial aquatic organisms and wetland plants, the dangers of flooding and pollution, and the destruction of the economic, aesthetic, recreational and other public and private uses and values of aesthetic, recreational and other public and private uses and values of wetlands and watercourses to the Mashantucket Pequot Tribe.
 - (6) The suitability or unsuitability of such activity to the area for which it is proposed.
 - (7) Measures which would mitigate the impact of any aspect of the proposed regulated activity. Such measures include, but are not limited to, actions which would avoid adverse impacts or lessen impacts to wetlands and watercourses and which could be feasibly carried out by the applicant and would protect the wetland's or watercourse's natural capacity to support fish and wildlife, to prevent flooding, to supply and protect surface and ground waters, to control sedimentation, to prevent erosion, to assimilate wastes, to facilitate drainage, to control pollution, to support recreational activities and open space, and to promote public health and safety.
- b. Criteria for Decision for Major Activity
- (1) In the case of any application which involves a major activity as defined by this Regulation, a Permit shall not be issued unless the Natural Resources Protection Department finds that the proposed alteration or destruction of wetlands or watercourses is unavoidable and that a feasible and prudent alternative to the alteration or destruction of wetlands or watercourses does not exist. In making this finding, the NRPD shall consider the facts and circumstances set forth in the proceeding subsection or the results of any physical inspection for personal knowledge of this site. This finding and the reasons therefore shall be stated in the record of the decision by the Land Use Commission.

- (2) In reaching a decision on any application, which involves a major activity, the Land Use Commission shall base its decision on relevant facts, NRP's written findings and the record of the permit application review meeting. See Ch. 5, §5 of the Land Use Law. A conclusion that a feasible and prudent alternative does exist does not create a presumption that a Permit should be issued. The applicant has the burden of demonstrating that this application is consistent with the purposes and policies of the Inland Wetlands and Watercourses Regulation and the Land Use Law.
- (3) Criteria for Activities which may affect a Regulated Vernal Pool
Site clearing, grading and construction activities in proximity to a vernal pool may cause secondary, indirect or cumulative effects to the function of a vernal pool as special breeding habitat. Such effects are to be minimized to the extent practicable. In preparing their written findings, the Natural Resources Protection Program shall review the productivity of the pool, consider the cumulative impact on the Critical Terrestrial Habitat, and make such recommendations as necessary to preserve a directional buffer to support the life cycle requirements of those species utilizing the pool.

CHAPTER 5. APPEALS, ENFORCEMENT AND MONITORING

§ 1. Appeals

Any Applicant or person who has been denied a Permit or who has had an enforcement action commenced against them pursuant to this Regulation and the Land Use Law may appeal as stipulated within the MPTN Land Use Law (M.P.T.L. Title 14).

§ 2. Enforcement

The requirements of this Regulation shall be enforced by the Land Use Commission and the Natural Resources Program in accordance with Ch.9 of the Land Use Law.

§ 3. Monitoring

Activities regulated by this Regulation shall be monitored by the Commission and the Natural Resources Protection Program according to Chapter 9 of the Land Use Law.

§ 4. Amendments

a. This Regulation and the MPTN Inland Wetlands and Watercourses Map may be amended, from time to time, by the Natural Resources Protection Program as new information regarding soils and inland wetlands and watercourses becomes available.

b. An application filed with the Commission which is in conformance with this Regulation as of the date of the decision of the Commission with respect to such application shall not be required thereafter to comply with any change in inland wetlands regulations, including changes to setbacks and buffers, taking effect on or after the date of the Commission's decision, provided that the project is underway within one year of said change. If the project is not underway within one year of the change, said change shall apply to the project. The provisions of the subdivision shall not be construed to apply to the establishment, amendment or change of boundaries of inland wetlands or watercourses.

TITLE 6. HISTORIC PRESERVATION

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TITLE 6. HISTORIC PRESERVATION**CHAPTER 1. PROJECT REVIEW STANDARD REGULATION****§ 1. Purpose and Scope**

- a. Tribal Council Resolution TCR050808-01 approved the Mashantucket [Western] Pequot Tribal Nation (MPTN) Historic Preservation Plan (Plan) which declares that MPTN:
- (1) has responsibility for preservation of an extensive inventory of significant and/or potentially significant cultural resources located within Mashantucket, and aboriginal territory, which are important as they reflect cultural continuity of the Tribe's occupation of Mashantucket and adjacent lands throughout the pre-Contact and Historic periods;
 - (2) is committed to the responsibilities outlined in the National Historic Preservation Act to identify, preserve, and protect these resources in concert with the Tribe's mission.
 - (3) has appointed a Tribal Historic Preservation Officer (THPO) who will assume some or all of the functions of the State Historic Preservation Officer as set forth in Section 106(b) of the National Historic Preservation Act.
- b. Tribal Council Resolution TCR060807-01 established the Tribal Historic Preservation Office declaring that the THPO will:
- (1) assist MPTN in better understanding and implementing federal cultural resource management and tribal historic preservation policy;
 - (2) recognize and integrate cultural resource considerations in decisions affecting Mashantucket and balance such considerations with other Tribal mission requirements; and,
 - (3) develop procedures to protect significant cultural resources within Mashantucket and aboriginal territory.

§ 2. Authority

- a. The MPTN Historic Preservation Plan established that the Land Use Commission shall have the authority to enforce compliance with the Plan.
- b. Tribal Council Resolution TCR060807-01 established that the Tribal Historic Preservation Officer will:
- (1) assume some or all of the functions of the State Historic Preservation Officer as set forth in Section 106(b) of the National Historic Preservation Act;
 - (2) identify, by conducting archaeological reconnaissance surveys, those proposed projects or actions that may result in an adverse effect on cultural properties;
 - (3) assess the need for further archaeological investigations in order to define site boundaries, cultural contexts and/or the significance for individual cultural properties;
 - (4) oversee or implement those surveys, site evaluations, and data recovery programs; and
 - (5) determine whether any action will have "no effect," "no adverse effect", or "adverse effect" on important cultural resources pursuant to 36 CFR 800 regulatory guidance.

§ 3. Applicability

a. Applicants seeking a Land Use Permit for an activity which involves new construction, demolition of existing structures, or that will in any way involve ground-disturbance, must first consider the effects that activity could have on historical and cultural resources and avoid, minimize or mitigate any adverse effects on those resources.

b. The typical assessment involves four primary steps:

- (1) Consultation with the MP/TN THPO;
- (2) Identification of Historical and Cultural Resources;
- (3) Assessment of Adverse Effects; and
- (4) Resolution of Adverse Effects.

§ 4. Assessment Required

a. Reconnaissance Survey

- (1) The THPO will require a reconnaissance survey to determine the potential for archaeological sites in an area.
 - (a) Reconnaissance surveys generally do not involve extensive field investigation, though often will require a field visit by the THPO and/or designated archaeology staff.
 - (b) Staff will assess archival research and site survey information and provide written recommendations to the THPO.
- (2) The archaeologist may recommend that no additional archaeological site work is necessary if:
 - (a) it is unlikely that cultural resources are present because the area had been previously disturbed, or
 - (b) no significant cultural resources had been identified through previous survey work within the area.
- (3) In many cases additional field survey will be required.

b. Phase I Investigation

- (1) Phase I investigation consists of a combination of background research and fieldwork designed to identify resources and define site boundaries within a given project area or Area of Potential Effect (APE).
 - (a) During the Phase I investigation, the entirety of the project area must be studied.
 - (b) Locations not surveyed or only partially examined during a Phase I investigation will require additional work.
- (2) If it is determined that a Phase I investigation is required it shall be completed by qualified archaeologist, approved by the THPO, at the Applicant's expense.
- (3) It may be the case that preliminary field work had previously been completed by others. In such cases the THPO will provide the approved archaeologist with any archaeology survey data available for the APE.

c. Phase II Investigation

- (1) Phase II archaeological investigations are conducted in order to test or evaluate an archaeological site's eligibility for inclusion in the National Register of Historic Places (NRHP).

- (a) Field investigations should be designed to retrieve the information necessary to determine the eligibility of a site without seriously impacting the contextual integrity of the resource. Therefore, a limited testing regimen should be developed upon consultation with the THPO.
 - (b) In order to facilitate the evaluation process, specific information should be recovered during a Phase II investigation. This information may include, but is not limited to:
 - (i) evaluating areas of moderate and high artifact densities,
 - (ii) determination of the vertical limits of the site, the presence of intact, sub-surface, and/or stratified deposits, site structure, and site formation processes.
 - (2) Phase II Investigations must also determine the horizontal and vertical limits of the archaeological sites, and retrieve spatial, temporal, and subsistence information about the sites.
 - (3) Prior to the initiation of fieldwork, a detailed and concise scope of work must be submitted to the THPO for approval.
 - (a) The Phase II scope of work may be submitted as an appendix or addendum to the completed Phase I technical report.
 - (b) If, during the course of fieldwork, Phase II methods are found to be inadequate, the scope of work may be modified upon consultation with the THPO.
 - (c) A number of field methods and techniques may be implemented during Phase II investigations. These include:
 - (i) systematic, controlled surface collection, and additional shovel tests;
 - (ii) hand-excavated test units, deep testing, or mechanical removal of the plow zone; and,
 - (iii) use of remote sensing techniques.
 - (4) If the archaeological site(s) is determined to be eligible for inclusion in the National Register, the effect the project may have on the site(s) must be assessed.
 - (a) Avoidance of the site results in a determination of no effect.
 - (b) If the property cannot be avoided, and if any damage or disruption of the resource will result from implementation of the project, a determination of adverse effect is made.
 - (5) The THPO will consider the recommendations of the archaeologist and then discuss how to minimize or prevent the project's negative effect on the historically significant property with the Applicant.
 - (6) Data recovery efforts may be required to mitigate the adverse effect by recovering significant data or information prior to disturbance or destruction. Data recovery is also known as Phase III investigation.
- d. Phase III Investigation
- (1) If an archaeological site cannot be avoided or protected during construction, for a project to proceed, it may become necessary to recover as much data from the site as possible before it is destroyed. At this point, a Phase III archaeological excavation (or “dig”) may be required.
 - (a) Phase III Investigations are large-scale efforts that require a great deal of labor both in the field and in the laboratory.
 - (b) The outcome is a research volume that fully discusses the results of the investigation and represents a significant scientific contribution to the fields of prehistory and/or history.
 - (2) Prior to the initiation of data recovery, a detailed and concise scope of work must be submitted to the THPO for approval. The data recovery plan must include:

- (a) an overview of previous investigations that were conducted for the archaeological resource(s).
- (b) a brief description of the Phase II finding and justification for the determination of eligibility, and
- (c) a detailed description of the level and effort of fieldwork to be conducted.

§ 5. Inspections and Notifications

a. Authority to Inspect

- (1) Pursuant to 14 M.P.T.L. Ch 9b. the THPO shall have the authority to inspect site work to ensure compliance with this Regulation and the MPTN Historic Preservation Plan.
- (2) The THPO may also require, at Applicant's expense, that qualified and approved archaeology staff be present to witness any site activities involving disturbance of previously undisturbed ground.

b. Mandatory Notifications

- (1) In the event that undocumented cultural or historical resources are unexpectedly encountered during construction, the contractor will immediately cease all construction activities in the immediate vicinity that may reasonably be assumed to affect the cultural or historical resource.
 - (a) The THPO may require, at the Applicant's expense, that a qualified approved archaeologist perform the required investigation/evaluation.
 - (i) Such resources discovered shall to the extent possible be protected in-situ.
 - (ii) Resources may, on a case-by case basis, in consultation with the THPO, be mitigated by archaeologist qualified and approved by the THPO.
 - (iii) Under no circumstance shall artifacts be removed from the site unless approved by the THPO.
 - (iv) Notwithstanding anything to the contrary herein, the curation and disposition of any cultural or historical resources shall be consistent with 36 C.F.R. Part 79 and any other applicable laws.
 - (b) While the matter is being resolved with the appropriate parties, the contractor and archaeologist, will isolate the area and convey to the permittee that no construction will take place in the immediate area of the find.
 - (c) Construction outside the immediate area of the find may continue.
- (2) If human remains are unexpectedly encountered during construction, the remains will be treated in a respectful manner and in accordance with all applicable laws.
 - (a) In addition to immediately cessation of all construction activities and contacting the THPO, the site shall be treated as a suspected crime scene and the Applicant shall immediately notify the MPTN Police Department.
 - (i) The Applicant is responsible for ensuring the confidentiality of the discovery by instructing all contractors that communication needs to be made through the appropriate authorities.
 - (ii) Until it is determined that the discovery is not a crime scene, all communication shall be directed through the MPTN Police Department.
 - (b) When the determination is made that the human remains are not related to a crime scene, the THPO may involve the Connecticut State Historic Preservation Officer (SHPO) and the CT State Archaeologist to assist with determination of whether the remains are native American.
 - (c) The THPO will consult with the Mashantucket (Western) Pequot Historic Cultural Preservation Committee (HCPC) and Tribal Council to make a determination for reburial.

CHAPTER 2. RESTRICTED SITES

§ 1. Findings and Purpose

The Mashantucket Pequot Tribal Nation, to ensure long-term protection and preservation of sites of archaeological, historical, cultural, or spiritual significance, in order to preserve, protect, and advance the governmental, social, cultural, and economic strength of the Mashantucket Pequot Tribal Nation for the benefit of past, present, and future Mashantucket Pequot Tribal people, finds it necessary to ensure certain sites, parcels, or lots of land are permanently restricted from development, damage or intrusion.

§ 2. Restricted sites

The Mashantucket Pequot Tribal Nation, to ensure long-term protection and preservation of sites of archaeological, historical, cultural, or spiritual significance, in order to preserve, protect, and advance the governmental, social, cultural, and economic strength of the Mashantucket Pequot Tribal Nation for the benefit of past, present, and future Mashantucket Pequot Tribal people, designate the following sites, parcels, or lots of land as permanently restricted from development, damage, or intrusion:

- a. TCR071306-03 of 15
 - (1) Lots F2 and F15 of Phase 7 Housing Area;
 - (2) Preston Plains — a sample of the Archaic Period pit houses;
 - (3) Lot 153R – the 17th Century Pequot Fort;
- b. TCR111407-01 of 02
 - (1) Site 72-91 (Monhantic Fort—Lot 153R);
 - (2) Site 72-97 (Sandy Hill);
 - (3) Site 164 (Phase 7 Housing);
 - (4) Site 72-70A (Mashantucket Pequot house/farmstead);
 - (5) Site 72-190 (Lot 15 Fox Trail—Phase 7 Housing);
- c. TRC062909-03 of 06
 - (1) Site 72-282 (Island at the cul-de-sac of Amos George Drive)
- d. TCR033111-09 of 09
 - (1) Fanning Road Cemetery (Site 72-49);
 - (2) Lot 2[*sic*] 32 Fanning Road; and
 - (3) The dirt road from the graveled, Parking Area, immediately adjacent to Fanning Road, to the palisade passes through an area of extreme cultural sensitivity as the areas on either side of the gravel road contains unmarked Pequot graves dating to the 17th and 18th centuries. No parking, turning, or driving should be allowed in this area other than on the gravel road. The areas on either side of the gravel road shall be permanently excluded from development, damage, or intrusion.
- e. TCR042513-06 of 06
 - (1) Fanning Road Cemetery (Site 72-49).
 - (a) Lots 32 and 50 Fanning Road.
 - (2) Council Rocks: Site 72-117, Lot 39
 - (3) Sites located outside of Mashantucket
 - (a) Long Pond Cemetery-Mashantucket (Western) Pequot: Site 72-200, Lot 37.
 - (b) Mashantucket (Western) Pequot - Lake of Isles/Ridge Burial (Lake of Isles Golf Course).
 - (c) Mason's Island Cemetery, Site 137-9; 93 Old North Road, Stonington, CT.

f. TCR040419-01 of 01

Removed all parcels in the proposed Preston Plains Development area from restricted status with the exception of the to be established restricted Archeological Conservation Zone (amending/clarifying paragraph a(2) of this section, TCR071306-03 of 15).

g. TCR092321-01 of 09

Approves Lot C-13 Eunice George Drive as an Additional “Restricted Site”

h. *[Reserved]***§ 3. Authorization, Enforcement and Review.**

a. Only full review by the Tribal Historic Preservation Officer and Tribal Council can amend or revise this restriction. Tribal Council may not amend or revise this restriction unless there are prudent or feasible alternatives to the long-term preservation and protection of the restricted sites.

b. The Tribal Historic Preservation Officer and the Director of Research and Information Services for the Mashantucket Pequot Museum and Research Center shall be responsible for ensuring these sites are clearly identified and logged with the Natural Resources Protection and Regulatory Affairs Department; the Land Use Commission Administrator; the Department of Public Works, Community Planning & Property Management; the Office of Legal Counsel; the Tribal Clerk; and Tribal Government Administration.

c. The Tribal Historic Preservation Officer will conduct project review for any new construction, including new facilities, buildings, roadways, and any maintenance and landscaping activities on Tribal trust and fee lands that would result in either ground disturbance within archaeologically sensitive areas or visual changes to and/or alteration of significant traditional cultural properties. Identification of historic and cultural properties within unsurveyed Tribal trust and fee lands shall involve conducting reconnaissance archaeological surveys. The Tribal Historic Preservation Officer will identify protective buffer zones around sites and places of traditional and cultural importance as well as significant archaeological and historic sites. Significant sites and archaeologically sensitive areas on Tribal trust and fee lands shall be studied further as project-related needs require. Impacts to sites and sensitive areas shall be avoided, minimized, or mitigated.

TITLE 7. LAND CLEARING REGULATION

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|---------------------------------|--|
| 20-Jun-14 | TCR060806-08 of 14 LU-14-079 | Adopted Land Clearing Policy Regulation as Tribal Law Codification as Title 7 of Land Use Regulations |
| 11-Jan-16 | TCR121715-01 of 08 | Approved sale of timber resources when authorized by Resolution |

TITLE 7. LAND CLEARING REGULATION**CHAPTER 1. POLICY, PURPOSE AND DEFINITIONS****§ 1. Declaration of Policy**

It is declared to be the policy of the Mashantucket Pequot Tribal Nation (MPTN) to provide for sound regulation and control of the land clearing in order to conserve the wooded character of the Mashantucket Pequot Tribal Reservation for the benefit and enjoyment of future generations of tribal members. This policy provides for the regulation of forest resources in a manner that ensures the health, safety and general welfare of all residents of the MPTN, its employees and patrons, and protects natural resources and the overall condition of the environment.

§ 2. Purpose

It is the purpose of this policy to:

- (1) help conserve the wooded character of the Mashantucket and protect forest resources by regulating the cutting of native woody vegetation;
- (2) protect specimen trees and significant forest communities from excess damage or removal during site development;
- (3) promote land development and site planning practices that are responsive to the scenic character of the area without preventing the reasonable development of land;
- (4) protect archaeological and/or historic resources; and,
- (5) formalize a more streamlined process for the approval of land clearing.

§ 3. Definitions

a. As used in this Land Clearing Policy, all terms not defined herein will have the meaning given them in the Bureau of Indian Affairs Manual 53.

b. Definitions

- (1) “Applicant” means any person proposing to engage in or has engaged in any non-exempt land clearing on Tribal Land.
- (2) “BIA regulated activities” means the harvesting of timber resources on reservation lands that are forested and have otherwise not been developed or designated by Tribal Council Resolution for exclusive nonforest use.
- (3) “Beneficial woody plants” means woody plants that can support berries or nuts beneficial to wildlife as forage.
- (4) “Commercial application” means any application for a land clearing permit for which a residential application would not be applicable.
- (5) “Cutting” means felling or removal of native woody vegetation, or any procedure in which the natural result will lead to the death or substantial destruction of a tree or covered (or protected) vegetation. Such acts include but are not limited to the severe cutting back of limbs to stubs larger than three inches in diameter. Cutting does not include normal pruning within the bounds of accepted arboricultural practices.

- (6) “Development” means all site improvements, including buildings, structures, parking and loading areas, landscaping, paved or graveled areas, and areas devoted to exterior display, storage, or activities.
- (7) “Diameter/diameter-breast-height” (DBH) means the diameter of any tree trunk, measured at 4.5 feet above existing grade. DBH shall be the standard measure used to determine the trunk size of a tree.
- (8) “Dripline” means an area encircling the base of a tree which is delineated by a vertical line extending from the outer limit of a tree's branch tips down to the ground.
- (9) “Essential Root Zone” means an area located on the ground between the tree trunk and 10 feet beyond the dripline of a tree which is required for protection of a tree's root system.
- (10) “Forester” means a person who by reason of special knowledge and training in natural sciences, mathematics, silviculture, forest protection, forest mensuration, forest management, forest economics, and forest utilization is qualified to engage in the practice of forestry.
- (11) “Forest Land” means an ecosystem of at least one acre in size, including timberland and woodland, which:
 - (a) is characterized by a more or less dense and extensive tree cover;
 - (b) contains, or once contained, at least ten percent tree crown cover; and,
 - (c) is not developed or designated by Tribal Council Resolution for exclusive nonforest use.
- (12) “Filling” means the act of transporting or placing (by any manner or mechanism) material from, to, or on any soil surface or natural vegetation.
- (13) “Grading” means any excavating, filling, clearing, or the creation of impervious surface, or any combination thereof, which alters the existing surface of the land.
- (14) “Grubbing” means removal of stumps by means other than grinding in-place.
- (15) “Hazardous tree” means a tree with a structural defect or disease, or which impedes safe sight distance or traffic flow, or otherwise currently poses a threat to life or property.
- (16) “Invasive plant” means non-native plants that are disruptive in a way that causes environmental or economic harm, or harm to human health as listed by the Connecticut Invasive Plants Council.
- (17) “Land Clearing” means the removal or causing to be removed, through either direct or indirect actions, native woody vegetation from a site. Actions considered to be clearing include, but are not limited to, causing irreversible damage to roots or trunks; destroying the structural integrity of vegetation; and/or any filling, excavation, grading, or trenching in the root area of a tree which has the potential to cause irreversible damage.
- (18) “Landscaped vegetation” means vegetation intentionally planted at a particular location to enhance the visual/aesthetic qualities of the property and/or structure or to enhance some other quality such as the energy efficiency of a structure and etc.
- (19) “MPTN” means Mashantucket Pequot Tribal Nation.
- (20) “MPTN cultural resource entities” means the Tribal Department of Cultural Resources and the MPTN Museum and Resource Center.
- (21) “Native Woody Vegetation” means woody vegetation which is endemic to the area surrounding the Mashantucket Pequot Tribal Reservation and which would normally be identified with a healthy and productive range condition occurring as a result of the natural vegetative process of this area.
- (22) “Natural Resources Protection Program” or “NRP” shall mean the tribal government department (formerly the NRPD) assigned the responsibility to monitor and protect natural

- resources and all staff within that department with experience and qualifications suitable for executing the duties necessary to fulfill that responsibility.
- (23) “Nonforest Land” means Land that has never supported forests, or land formerly forested but either currently is, or has been designated by Tribal Council as, nonforest (e.g., cropland, pasture, residential areas, marshes, swamps, highways, and industrial or commercial uses).
- (24) “Person” shall mean any Tribal Member, Tribal employee, individual, partnership, firm, company, contractor or subcontractor, corporation, association, organization, estate, governmental entity or any other legal entity or its representative, agents or assigns. Use of the singular shall also include the plural.
- (25) “Protected tree/vegetation” means a tree or area of understory vegetation identified on an approved landscape plan to be retained and protected during construction.
- (26) “Qualified Arborist” means a professional who possesses the technical competence through experience and related training to provide for or supervise the maintenance of trees and other woody plants in the residential, commercial, and public landscape.
- (27) “Regulated property” means the Mashantucket Pequot Indian Reservation (as defined at Title 25 U.S.C. § 1752(7), Pub.L. 98-134, § 3, Oct. 18, 1983, 97 Stat. 852.) and all property owned by the Mashantucket Pequot Tribal Nation where land clearing is not otherwise regulated under other local ordinance.
- (28) “Residential Application” means an existing area of housing development when the proposed activity is to occur within one designated lot.
- (29) “Secretary” means the Secretary of the Interior or his or her authorized representative.
- (30) “Specimen tree” means a native, introduced or naturalized tree which is important because of its impact on community character, its significance in the historic/cultural landscape or its value in enhancing the effects of wildlife habitat. Any tree with a DBH of 6" or larger is eligible to be considered a specimen tree. Trees that have a small height at maturity or are slow growing, such as flowering dogwood or american holly with a DBH of 4" or larger are eligible to be considered specimen trees.
- (31) “Significant design change” means any change to a design that may result in an increase in, or geometry change to, the area of land clearing required.
- (32) “Significant forest community” means unfragmented forests including forest types that provide habitat for rare species, unusual ecological processes, highly diverse forest communities, rare forest types, and those forest types which maintain connections between similar or different habitat patches.
- (33) “Significant land clearing activity” means an activity which requires a land clearing permit to clear:
- (a) an area one-tenth of an acre or more that has some beneficial woody vegetation;
 - (b) will result in the cutting of twenty or more trees with a DBH greater than 4 inches; or,
 - (c) will result in the cutting of a specimen tree or culturally significant shrubs.
- (34) “Shrub” means beneficial woody plants that are not trees, or other woody plants greater than 0.5 m in height that generally exhibit several erect, spreading, or prostrate stems; and have a bushy appearance.
- (35) “THPO” means the Mashantucket Pequot Tribal Historic Preservation Officer.
- (36) “Timber products” means timber and all marketable products including, lumber, lath, crating, ties, bolts, logs, pulpwood, fuelwood, posts, poles, and split products; bark; Christmas trees, stays, branches, firewood, berries, mosses, pinyon nuts, roots, acorns, syrups, wild rice, mushrooms, and herbs; other marketable material.

- (37) “Tree” means a woody perennial, usually single stemmed plant that has a definite crown shape and reaches a mature height of at least 4 meters. The distinction between woody plants known as trees and those called shrubs is gradual. Some plants grow as either trees or shrubs.
- (38) “Trespass” means the removal of forest products from, or damaging forest products on, Indian forest land, except when authorized by law and applicable federal or tribal regulations. Trespass can include any damage to forest resources on Indian forest land resulting from activities under contracts or permits or from fire.
- (39) “Understory vegetation” means small trees, shrubs, and groundcover plants, growing beneath and shaded by the canopy of trees.
- (40) “Woody” means Containing lignified plant tissue.

CHAPTER 2. APPLICABILITY

- a. No person shall undertake on regulated property land clearing without first obtaining a permit to do so from the NRP unless specifically exempted from doing so by Chapter 2 paragraph c. of this regulation.
- b. The requirements of this regulation do not apply to tree cutting which is reviewed pursuant to any other provision of Mashantucket Pequot Tribal Nation Code.
- c. The provisions of this regulation shall not apply to the following activities:
 - (1) removal of hazardous trees, as defined herein, and so deemed by either a qualified arborist, forester, Director of NRP, or the Director of MPTN Public Works;
 - (2) routine maintenance of vegetation including the removal of dead or diseased limbs or other necessary pruning or climbing vine removal to maintain the health of the plant;
 - (3) removal of invasive plants;
 - (4) removal to remedy a potential fire condition as determined by the MPTN Fire Chief and/or the Director of NRP;
 - (5) removal, without grubbing, of non-beneficial and non-flowing trees with a DBH less than four (4) inches located on a residential lot;
 - (6) removal, without grubbing, of non-beneficial and non-flowering shrubs located on a residential lot; and
 - (7) removal of landscaped vegetation provided that it is done with the permission of the person responsible for landscaping the area (e.g. homeowner or MPTN Public Works Department).
- d. Trespassers shall be assessed penalties in accordance with Title 25 CFR § 163.29 and Title 25 U.S.C. § 3106.
- e. Nothing in this Title exempts or excuses any person from complying with any applicable laws and ordinances of local towns or other governmental jurisdictions.

CHAPTER 3. NOTIFICATION OF SIGNIFICANT LAND CLEARING ACTIVITY

§ 1. Residential

Persons planning a project that will require a residential land clearing permit for which significant land clearing activities may occur shall:

- (1) setup a site walk with NRP staff to discuss proposed site layout prior to finalizing plans; and,

- (2) work with NRP staff in order to best comply with the management practices detailed with 8 L.U.R., Environmental Conditions for Site Development.

§ 2. Commercial

a. Persons planning a project that will require a commercial land clearing permit for which significant land clearing activities may occur shall:

- (1) notify NRP at the commencement of concept site design;
- (2) include NRP in review of each significant design change; and,
- (3) at each review step NRP shall provide written comments regarding compliance with the best management practices detailed with 8 L.U.R., Environmental Conditions for Site Development.

b. Persons failing to comply with these provisions shall be held responsible for all project impacts that may result from a denial or untimely issuance of a land clearing permit, provided that the reasons for denial or delay are the result of issues of compliance with 8 L.U.R.

CHAPTER 4. APPLICATIONS

§ 1. Land Clearing Activities on Non-Forest Land

a. Residential Applications

NRP will make available a standard form to be completed by the resident applicant or NRP staff upon verbal communication with the resident. Such forms will include at minimum:

- (1) the applicant's name, address and phone number;
- (2) the property holder's or property user's name, address and phone number, if different from the applicant's;
- (3) the street address or legal description of the property upon which the trees to be cut are located;
- (4) the number, size and species of the trees to be cut;
- (5) a statement of the reason for cutting or removal;
- (6) the schedule and method of cutting or removal, including whether stumping is to occur;
- (7) a statement of compliance with TCR060398-03 of 05 which states that $\frac{1}{4}$ of the property must stay in a natural state;
- (8) proposed use or disposal method for timber product;
- (9) proposed mitigation if required pursuant to this regulation or pursuant to any other applicable environmental regulation, information concerning the proposed planting of new trees to replace the trees to be cut; and,
- (10) any other information reasonably required by NRP.

b. Commercial Applications for Non-Significant Land Clearing

NRP will make available a standard form to be completed by the applicant. In addition to the information specified within paragraph a. of this section such forms will include:

- (1) a clear delineation of the vegetation to be cut either by the marking individual trees or delineation of the area with flagging;
- (2) a copy of notice sent to MPTN cultural resource entities announcing the availability of resources to be cut; and

- (3) a statement that the Director of Public Works has been notified of the proposed clearing and offered all those timber products resulting from the proposed cut that will not be utilized directly by the project or delivered to MPTN Cultural Resource entities.
- (4) Not that the statement of compliance with TCR060398-03 of 05 is not relevant to Commercial Applications.

c. Commercial Applications for Significant Land Clearing

In addition to the form required in paragraph b. of this chapter, the Applicant shall provide:

- (1) a copy of the Tribal Council Resolution authorizing the project location and thus designating non-forest use lands;
- (2) proof of compliance with the notification required in Chapter 3, § 2;
- (3) a record of all significant design changes and/or responses to NRP regarding compliance with 8 L.U.R.;
- (4) Any other information reasonably required by NRP.

§ 2. Land Clearing Activities on MPTN Forest Land

a. Free-use Harvesting Permits

NRP will make available a standard form to be completed and signed by the applicant tribal member. Such forms shall be authorized by the secretary and will include at minimum:

- (1) the applicant tribal member's name, address and phone number;
- (2) the street address or legal description of the property upon which the trees to be cut are located;
- (3) the schedule and method of cutting or removal, including whether stumping is to occur;
- (4) species and types of forest products to be removed specified;
- (5) the reason for cutting;
- (6) the estimated value of the timber;
- (7) a statement that the that forest products removed under this authority will be used for the sole benefit of the applicant tribal member and will not be sold or exchanged for other goods or services;
- (8) a statement that the cutting will not adversely affect associated resources such as riparian zones, areas of special significance, etc;
- (9) a statement indicating that the estimated value to be harvested; and
- (10) a plan for natural and/or artificial reforestation or the area.

b. Forest product harvesting permits

- (1) Except as provided in Section 5(d)(1) removal of forest products that are not under formal contract, pursuant to 25CFR163.19, shall be under forest product harvesting permit forms approved by the Secretary. Permits will be issued only through Tribal Council Resolution, for harvest of forest products from Indian forest land, as authorized in 25CFR163.20. To be valid, permits must be approved by the Secretary. Minimum stumpage rates at which forest products may be sold will be set at the time consent to issue the permit is obtained. Payment and bonding requirements will be stipulated in the permit document as appropriate.
- (2) Timber cutting permit form BIA 5-5331 shall be used for paid permit harvesting.

CHAPTER 5. REVIEW OF APPLICATION

§ 1. General

- a. NRP shall review applications for conformance to the provisions of this regulation and either accept as complete and in conformance, return for revisions, or deny the application within three business days.
- b. Applications that involve Significant Land Clearing for which compliance with Chapter 3 cannot be demonstrated are to be considered incomplete. The applicant may either withdraw the application or continue working with NRP to document compliance with 8 L.U.R. However, no time frame is specified for action by NRP on incomplete applications. NRP is not responsible for project delays resulting from non-compliance with Chapter 3.
- c. Upon receipt of a complete application NRP shall immediately notify by e-mail the Tribal Historic Preservation Officer, and transmit a copy of the permit application via email and/or traditional mail services.

§ 2. Review Standards

- a. Permit applications for land clearing consisting of solely dead or dying vegetation.
 - (1) A permit shall be issued if the NRP determines that the vegetation is dead or dying, except for instances where the retention of dead or dying trees located in wetlands, natural areas, stream corridors, parks or open space areas, in order to provide for wildlife habitat and natural processes, unless the tree presents a potential hazard to persons or property.
 - (2) For the purposes of this section:
 - (a) "Dead" means the vegetation is lifeless; and,
 - (b) "Dying" means the vegetation is in an advanced state of decline because it is diseased, infested by insects or rotting and cannot be saved by reasonable treatment or pruning, or must be removed to prevent spread of the infestation or disease to other trees.
- b. Permit applications for a non-significant land clearing permit.
 - (1) A permit shall be issued if the NRP determines that removal of the vegetation will:
 - (a) not result in the removal of a unique habitat for wildlife;
 - (i) For the purposes of this section "unique" means:
 1. the presence of an active nest that cannot be relocated; or,
 2. existing in a number or quality not present within the immediate surrounding area.
 - (ii) For the purpose of this section "habitat" means:
 1. beneficial woody vegetation;
 2. significant indication of past nesting, perching or other wildlife activities; or,
 3. presence of cavities suitable for wildlife roosting.
 - (b) not exacerbate issues of erosion, soil stability, soil structure, flow of surface waters, water quality, health of adjacent trees and understory vegetation, or existing windbreaks; and,
 - (c) not alter significantly the character, aesthetics, property values or surrounding property uses.
 - (2) A permit may also be granted if the NRP determines that all prudent and feasible alternatives have been assessed and suitable and appropriate mitigation can be agreed upon.

- (3) In addition, a Residential application shall not be approved unless found to be in compliance with TCR060398-03 of 05 which states that $\frac{1}{4}$ of the property must stay in a natural state.
 - (4) A permit for a significant residential land clearing shall be issued if NRP determines that the design incorporates the BMPs specified in 8 L.U.R. Note: compliance with 8 L.U.R. may be accomplished through a mutual agreement between the applicant and NRP which specifies an appropriate mitigation. Mitigation cannot substitute for impacts deemed negative and easily avoidable by NRP.
- c. Permits applications which include grubbing:
- (1) require compliance with all applicable requirements of 8 L.U.R. Note: for Residential Applications, compliance with 8 L.U.R. may be accomplished through a mutual agreement between the applicant and NRP; and,
 - (2) require compliance with the policies and procedures of the THPO (See 6 L.U.R.).
- d. Permit applications for a significant land clearing permit.
- (1) A permit shall only be issued if the NRP determines that the entire project will be in compliance with the applicable best management practices specified in 8 L.U.R. (Note: for Residential Applications, compliance with 8 L.U.R. may be accomplished through a mutual agreement between the applicant and NRP).
 - (2) Mitigation
 - (a) Commercial applications shall require an adequate mitigation plan be submitted as a condition of approval for the permit.
 - (b) Residential applications may require an adequate mitigation plan be submitted as a condition of approval for the permit.
 - (c) Mitigation cannot substitute for impacts deemed negative and easily avoidable by NRP.
- e. Permit applications for harvesting within MPTN forest land.
- (1) Free-use harvesting
 - (a) A permit shall be issued, with a Timber Cutting Form BAI 5-5331 with "Free-Use" inserted above the title of the document, if the NRP determines that:
 - (i) removal of the vegetation will not adversely affect associated resources such as riparian zones, areas of special significance, etc;
 - (ii) the forest products will be used for the sole benefit of the applicant tribal member and will not be sold or exchanged for other goods or services unless authorized by Tribal Council Resolution;
 - (iii) the plan for natural and/or artificial reforestation is sufficient; and,
 - (iv) the estimated value harvested by the applicant tribal member within the current fiscal year will not exceed \$5,000.
 - (2) Any other BIA Regulated Harvesting Activities
 - (a) Except for the provisions outlined in Section 7f.(1) the harvest of timber on MPTN designated forest land shall be consistent with the current MPTN Forest Management Plan and follow all Bureau of Indian Affairs requirements as specified within 25 CFR 163 and the Indian Forest Management Handbook IAM 4-H.
 - (b) Removal of forest products that are not under formal contract, pursuant to 25CFR163.19, shall be under forest product harvesting permit forms approved by the Secretary. Permits will be issued only through TCR, for harvest of forest products from Indian forest land, as authorized in 25CFR163.20. To be valid, permits must be approved by the Secretary.

Minimum stumpage rates at which forest products may be sold will be set at the time consent to issue the permit is obtained. Payment and bonding requirements will be stipulated in the permit document as appropriate.

- (c) Harvesting timber on MPTN designated forest land will not be permitted unless provisions for natural and/or artificial reforestation of acceptable tree species is included in harvest plans.
- (d) Clearing of large contiguous areas will be permitted only on land that, when cleared, will be devoted to a more beneficial use than growing timber crops. This restriction shall not prohibit clearcutting when it is silviculturally appropriate and based on ecological principles.
- (e) The harvest of forest products from Indian forest land will be accomplished under the principles of sustained yield management and will not be authorized until practical methods of harvest based on sound economic and silvicultural and other forest management principles have been prescribed. Harvest schedules will be prepared for a specified period of time and updated annually. Such schedules shall support the objectives of MPTN and the Secretary and shall be directed toward achieving an approximate balance between net growth and harvest at the earliest practical time.

CHAPTER 6. MITIGATION

a. Mitigation may be required as a condition of a permit issued under this regulation, or if a tree is cut in violation of this regulation. The mitigation plan shall be submitted at the time of application and shall provide for the following:

- (1) Tree replacement shall be determined according to the DBH of the tree to be removed.
- (2) The total DBH of the replanted trees shall equal the DBH of the tree to be removed.
- (3) The DBH of the replacement trees must be the largest reasonable available by local nurseries.

b. The location of the replacement trees shall meet one or more of the following at the discretion of the MPTN NRP:

- (1) In the public right-of-way adjoining the property where the tree to be removed is located, in accordance with this regulation. The MPTN NRP shall consult with the Mashantucket Pequot Tribal Nation Planning Department to avoid conflict with current and future utilities.
- (2) On the property where the tree to be removed is located. Site characteristics shall be taken into consideration.
- (3) If no suitable place exists on the property where the tree to be removed is located or in the adjoining right-of-way, the applicant may plant trees on another property in the neighborhood with the permission of the property owner.
- (4) If no suitable place exists on the property where the tree to be removed is located, the applicant may, in lieu of planting, pay a mitigation fee into the Mashantucket Pequot Tribal Nation's tree fund in accordance with the value typical nursery stock of the same species.

c. When the MPTN NRP determines that the above mitigation requirements create an unreasonable burden to a property owner, the MPTN NRP may adjust the mitigation requirements. Mitigation shall not be reduced if it is determined that an intentional violation exists.

d. If any replacement tree dies within three years of the planting, the property owner shall replace the tree. No replacement tree shall be cut without a permit under this Chapter.

e. Any person who fails to enter into a mitigation plan as required by this subsection or who fails to comply with any condition of that agreement, or with any condition of any permit issued under this regulation, shall be subject to the penalties provided for violation of this regulation.

CHAPTER 7. CONDITIONS ON USE OR DISPOSAL OF TIMBER PRODUCTS

§ 1. Permitted Residential Land Clearing

a. Unless a need for a specific species has been identified by MPTN Cultural Resource entities, timber cut under the authorization of a residential land clearing permit may be retained by the homeowner for personal use.

b. If the homeowner does not wish to retain the resource, the timber shall be offered to the MPTN Public Works Department for utilization within their firewood program or to meet other tribal needs.

c. Any timber not desired by the MPTN PW shall be disposed of by the homeowner.

d. Under no circumstances shall a residential permit to clear land be issued based solely on harvesting value from the sale of timber products.

§ 2. Permitted Commercial Land Clearing on Non-Forest Land

a. Unless a MPTN Cultural Resource entity has identified a specific resource for their use, timber cut under the authorization of a commercial land clearing permit may be utilized on-site for erosion control or other project specific uses.

b. Any timber product which will not be utilized on-site shall be offered to the MPTN Public Works Department for utilization within their firewood program or to meet other tribal needs.

c. Any timber not desired by the MPTN PW may be offered or otherwise sold to the contractor to offset project costs, provided that the contractor has been selected following the standard bidding procedures of the MPTN Procurement Department which shall require that each bid include the estimated value of the lumber.

d. Under no circumstances shall a Commercial Non-Forest permit to clear land be issued based solely on harvesting value out of the resource.

e. Any harvesting of resources, outside of the permitted limits, by a contractor who will take control of the resource will be assessed a penalty in accordance with Section 15(f)(3)c.

§ 3. Permitted Free-use harvesting on MPTN Forest Land

The forest products will be used for the sole benefit of the applicant tribal member and will not be sold or exchanged for other goods or services unless specifically authorized within a Tribal Council Resolution.

§ 4. Permitted BIA Regulated Harvesting Activities

The sale of timber on MPTN designated forest land shall be compliance with all Bureau of Indian Affairs requirements as specified within 25 CFR 163 and the Indian Forest Management Handbook IAM 4-H.

§ 5. Unpermitted Activities

The harvest or sale of forest products without permit is a trespass. Trespassers shall be assessed penalties in accordance with Title 25 CFR § 163.29 and Title 25 U.S.C. § 3106”

CHAPTER 8. MONITORING AND INSPECTIONS

a. Prior to commencement of construction, the applicant, contractor and construction crew, shall conduct a meeting with NRP to review the proposed construction phasing and number and timing of site inspections.

b. Initial site inspection of erosion and sedimentation controls and placement of tree protection measures shall occur after installation of barriers around preserved areas and construction of all structural erosion and sedimentation controls, but before any clearing or grading has begun.

c. Routine inspections of preserved areas and erosion and sedimentation controls shall be made at varying intervals depending on the extent of site alteration and the frequency and intensity of rainfall.

d. Effective stabilization of revegetated areas must be approved by NRP before erosion and sedimentation controls are removed. NRP shall complete an inspection prior to removal of temporary erosion and sedimentation controls.

CHAPTER 9. ENFORCEMENT**§ 1. Evidence of Violation or Trespass**

a. If a tree is removed without a tree cutting permit, a violation shall be determined by measuring the stump. A stump that is 4" or more in circumference shall be considered prima facie evidence of a violation of this chapter.

b. Removal of the stump of a tree cut without a tree cutting permit prior to the determination provided in above is a violation of this regulation.

c. Damage to forest resources - damage to trunks, mounding of soil around the trunk, evidence of root damage, and evidence of improper pruning - even damages resulting from but not specifically authorized under permits is a violation of this regulation.

d. Proof of violation of this regulation shall be deemed prima facie evidence that such violation is that of the owner of the property upon which the violation was committed. Prosecution of or failure to prosecute the owner shall not be deemed to relieve any other responsible person.

e. As soon as a violation is determined, the MPTN NRP shall notify the property owner in writing regarding the mitigation requirements of this regulation. Within thirty (30) days of the date of mailing of this notice, the property owner shall submit a tree cutting application in accordance with this regulation and enter into a mitigation plan approved by the MPTN NRP.

§ 2. Penalties

Penalties assessed are not to exceed the greater of:

- (1) value of the resource damaged; or,
- (2) \$1,000.00 per violation for each day during which the violation occurs; or,
- (3) three times the value of the resource(s) if the violation was by a contractor who took control of the resource and it was shown to be an over clearing that included a tree(s) with non-insignificant stumpage value.

§ 3. Hearing, Appeal and Judicial Review**a. Right to Hearing**

- (1) A person may request a hearing before the Land Use Commission if:
 - (a) a permit has been denied;
 - (b) a penalty has been assessed; or,
 - (c) they are seeking relief from a specific permit condition.
- (2) A request for a hearing must be filed with the Commission Administrator within thirty (30) calendar days of the issuance of an Enforcement Order or penalty; denial of a Permit, variance, or Certificate of Completion; or imposition of a Permit condition.

b. Hearing Procedure

The Hearing shall follow the procedures established within Tribal Administrative Procedures Act (40 M.P.T.L), with the Commission serving as the Hearing Official.

c. Right of Judicial Review

A Person dissatisfied with a final decision of the Commission is entitled to Tribal Court review provided that a complaint is filed pursuant to the procedures set forth in the Tribal Administrative Procedures Act.

d. Enforcement Action

- (1) If a Person does not comply with a final decision of the Commission, including the issuance of penalties or an Enforcement Order, the Commission may commence an enforcement action in the Mashantucket Pequot Tribal Court.
 - (a) Prior to filing an enforcement action with the Tribal Court, the Commission must issue the Person who is non-compliant a notice that includes a description of the non-compliance (e.g., failure to pay a penalty) and the date by which the non-compliance must be resolved.
 - (b) Enforcement actions shall be commenced by the Administrator on behalf of the Commission by filing a complaint with the Tribal Court clerk in the Mashantucket Pequot Tribal Court. The complaint shall be filed within sixty (60) calendar days of the expiration of the deadline set forth in the notice issued pursuant to paragraph (1) of this Section.

TITLE 8. CONDITIONS FOR SITE DEVELOPMENT

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|--|--|
| | TCR 060806-08 of 14 TCR 111413-11 of 17 | Provisions originally adopted as §8 of the Land Clearing Regulation Originally “Plan Notes Required for Small and Large Construction Activities,” re-organized and consolidated within this Title. |
| 12-Jun-14 | LU-14-079 | Codification as Title 8 of Land Use Regulations |

TITLE 8. CONDITIONS FOR SITE DEVELOPMENT**CHAPTER 1. GENERAL****§ 1. No Negative Impact to a Tribal Business**

When a Land Use Activity may affect the operations of a tribal business, including, but not limited to, the Gaming Enterprise, Applicants and Owners are required to meet or exceed any specification identified by the Tribe when the failure to do so would negatively impact insurance coverage, aesthetic quality, traffic flow or any other aspect related to such business.

§ 2. Tribal Resources

The Tribe owns all cultural, mineral and timber resources within Mashantucket. Such resources harvested as a necessity of an approved Land Use Activity remain the property of the Tribe. When approved, harvested resources may be utilized on-site as part of the permitted activity (e.g. cuts and fills to balance site grading). Excess resources not specifically utilized on-site as part of the permitted activity may not be sold or disposed of without the consent of tribal government. All harvested resources shall be delivered as specified by the Land Use Commission. If the Tribe declines such resources, disposal shall be the responsibility of the Land Use Permittee. If tribal government authorizes sale of resources by the Permittee, all proceeds shall be deposited into the general account of the Tribal Nation unless other in-kind arrangements have previously been negotiated.

CHAPTER 2. BEST MANAGEMENT PRACTICES (BMPs)**§ 1. Design Considerations****a. General**

The following measures shall be incorporated in site design to the extent possible. All prudent and feasible alternatives which could best meet these objectives must be considered.

- (1) Avoid any disturbance within fifty (50) feet of a wetland (see MPTN Inland Wetlands and Watercourse Regulation, 5 L.U.R.).
- (2) Minimize site alteration/land clearing.
- (3) Site/building design shall preserve natural topography outside of the development footprint to reduce unnecessary land disturbance and to preserve natural drainage pathways on the site.
- (4) Protect wildlife habitat: Sites shall be designed in such a way as to avoid impacts to rare species and wildlife habitat on a site, and to maintain contiguous forested areas.
- (5) Avoid impacts to archaeological resources: Consult with the Mashantucket Pequot Historic Preservation Officer (THPO) regarding the potential for archaeological or historical resources on the site (see 6 L.U.R., Historic Preservation).
- (6) The extent possible forested areas shall be preserved if they are associated with significant forest communities as defined herein;

- (a) wetlands, waterbodies and their buffers;
 - (b) critical wildlife habitat areas;
 - (c) slopes over 25 percent.
 - (7) Preserve open space and specimen trees on the site: In the design of a development, priority shall be given to retention of existing stands of trees, trees at site perimeter, contiguous vegetation with adjacent sites (particularly existing sites protected through conservation restrictions), and specimen trees.
 - (8) Placement of buildings, structures, or parking facilities shall not detract from the site's scenic qualities and shall blend with the natural landscape. Foundations shall be constructed to reflect the natural terrain.
 - (9) Minimize cut and fill in site development and strive for a "balanced site."
 - (10) Finished grades should be limited to no greater than a 2:1 slope, while preserving, matching, or blending with the natural contours and undulations of the land to the greatest extent possible.
 - (11) Finished grade shall be no higher than the trunk flare(s) of trees to be retained. If a grade change of 6" or more at the base of the tree is proposed, a retaining wall or tree well may be required.
- b. Stormwater Management
- (1) Stormwater management systems shall be designed following best management practices. In general, best design practices outlined within the 2004 Connecticut Stormwater Quality Manual shall be acceptable.
 - (2) Runoff shall not be discharged directly to rivers, streams, or other surface water bodies.
 - (3) Runoff from impervious surfaces shall, to the extent practicable, be recharged on the site through the use of infiltration basins, vegetated swales, constructed wetlands or similar systems covered with natural vegetation.
 - (a) All such basins, swales or constructed wetlands shall be preceded by oil/grit water quality structures.
 - (b) The goal shall be to retain, for subsequent infiltration, the "first flush" from a storm event (i.e. discharge associated with the first one inch of precipitation).
 - (4) At minimum runoff detention shall be provided so as to not result in an increase in peak runoff from a 25-yr. storm event.
 - (5) All conveyance structures shall be designed to, at minimum, convey a 100-yr. storm event without resulting in pre-system surcharge.
- c. Erosion and Sedimentations Control (ESC)
- (1) The designer shall, in consideration the unique characteristics of the specific site, select the appropriate controls to prevent soil erosion and off-site sedimentations.
 - (2) Erosion and Sediment Control (ESC) practices shall be shown schematically on a site civil plan sheet for review by the Land Use Commission. Notes shall be added to plans detailing the responsibilities of site personnel to ensure proper maintenance of ESC measures.
 - (3) Control measures shall include:
 - (a) the use of erosion control matting, mulches and/or temporary or permanent cover crops; and
 - (b) temporary or permanent diversions, berms, grassed swales, special culverts, shoulder dikes or such other mechanical measures as are necessary may be required to intercept and divert surface water runoff.

- (c) runoff flow shall not be routed through areas of protected vegetation or revegetated slopes and other areas. Temporary runoff from erosion and sedimentation controls shall be directed to BMPs such as vegetated swales.
- (4) Projects impacting greater than one (1) acre in area will be required to submit a separate Stormwater Pollution Prevention Plan.
- (5) Refer to Chapter 3 for requirements for Erosion and Sedimentation Control during construction.

§ 2. Site Management

The following proper site management techniques shall be employed during the development of the site.

a. Protection of Vegetation

- (1) No vegetation shall be cut outside of the established and approved clearing area. The clearing of vegetation is regulated by the MPTN Land Clearing Law. Under no circumstances shall vegetation be damaged or removed unless specifically permitted under the procedures outline in that Law.
- (2) During clearing and/or construction activities, all vegetation to be retained shall be surrounded by temporary protective fencing or other measures before any clearing or grading occurs, and maintained until all construction work is completed and the site is cleaned up. Barriers shall be large enough to encompass the essential root zone of all vegetation to be protected. All vegetation within the protective fencing shall be retained in an undisturbed state.
- (3) BMPs shall be employed to avoid detrimental impacts to existing vegetation, soil compaction, and damage to root systems.
- (4) Understory vegetation beneath the dripline of preserved trees shall also be retained in an undisturbed state.
- (5) Roots should be cut cleanly rather than pulled or ripped out during utility trenching. Tunneling for utilities installation should be considered as an alternative wherever practicably and economically feasible to protect root systems of trees.

b. Minimum Land Disturbance

- (1) Development envelopes for structures, driveways, wastewater disposal, lawn areas and utility work shall be designated to limit clearing and grading. Other efforts to minimize the clearing and grading on a site associated with construction activities shall be employed, such as parking of construction vehicles, offices/trailers, stockpiling of equipment/materials, etc. in areas already planned for permanent structures.
- (2) Clearing for utility trenching shall be limited to the minimum area necessary to maneuver a backhoe or other construction equipment.

c. Erosion and Sedimentation Control

During construction adequate erosion and sedimentation controls shall be installed and maintains as specified within Chapter 3.

d. Fueling and Spill Procedures

- (1) Portable fuel containers shall be metal self-sealing safety cans.
- (2) No fueling of any equipment will be allowed within 50 feet of a wetland or water body.
- (3) Fuel delivery companies will be instructed not to “top-off” tanks. The fuel trucks will carry a spills kit. Machinery will not be fueled while on slopes greater than 5:1.

- (4) Fuel storage tanks on stationary equipment shall have spill containment approved by MPTN-NRP prior to fueling.

e. Hazardous Materials

- (1) The contractor is responsible for the proper management of hazardous materials brought on to the site.
- (2) Chemicals which may or have the potential to come in contact with the ground must be approved by MPTN-NRP in advance of being brought on-site. When requested, the contractor shall provide detailed work plans for the storage, use and disposal of all chemicals. At no time will chemicals be transferred to containers not properly labeled specific to its contents.
- (3) On-site storage of hazardous substances or other chemicals in excess of those required for one day's site activities is not allowed.
- (4) The contractor shall have spill kits for all hazardous material brought on-site and for machinery with the potential to leak hazardous materials.
- (5) Machinery that is found to be leaking fluids will be repaired immediately or removed from the site.
- (6) The contractor shall notify the MPTN Fire Department (860) 396-6620 and the MPTN-NRP (860) 396-6740 immediately upon identification that a release of a non-natural substance to the environment has occurred.
- (7) The contractor shall be responsible for the remediation of a spill including but not limited to the removal of impacted soils and confirmatory testing if required by MPTN-NRP.
- (8) Maintenance of equipment on-site is not allowed unless specifically authorized by MPTN-NRP's field representative. Emergency and regularly scheduled maintenance that falls within the duration of the construction schedule will be authorized provided that the proper spills protection equipment is deployed. Under no circumstances will maintenance be allowed on machinery brought on-site prior to the start of construction.

f. Final Items

- (1) The washing of vehicles and machinery is not allowed on-site unless specifically authorized within the site specific Stormwater Pollution Prevention Plan or determined by MPTN-NRP to be necessary for the control of off-site sediment tracking.
- (2) Concrete washout will be to a contractor supplied washout box constructed for this intended purpose. These waste concretes must be removed from the site by the contractor prior to the completion of their contract.
- (3) The contractor shall clean all catch basins, grit separators, manholes, and basin forebays upon completion of construction activities and site stabilization.
- (4) The contractor shall remove all ESC measures upon completion of construction activities and final stabilization as determined by MPTN-NRP.
- (5) The contractor or project manager who filed the initial NPDES permit documents shall file the appropriate notice of termination.
- (6) Site litter shall not be tolerated. The Contractor is responsible for providing proper disposal containers for general debris and litter. Daily site inspections will be performed and the contractor shall provide labor for trash picking if required.
- (7) At no time will work be conducted within the boundaries of a wetland. No temporary fill or placement of equipment is allowed. There shall be no transport in or through wetlands.

CHAPTER 3. SEDIMENTATION AND EROSION CONTROL

§ 1. General Requirement

a. The extent of a site exposed at any one time shall be limited through phasing of construction operations. Effective sequencing shall occur within the boundaries of natural drainage areas.

b. ESC measures must be in place prior to the start of any construction. These measures, even if placed prior by others, shall be inspected and maintained throughout the duration of the project by the contractor.

c. If a specific ESC detail does not appear within construction documents, the contractor will be responsible to adhere to the details as specified within Connecticut's 2002 Erosion and Sedimentation Controls Guidelines or as determined in the field by MPTN Natural Resources Protection and Regulatory Affairs staff (MPTN-NRP).

d. The contractor is responsible for managing discharges from the site. The contractor shall relocate, adjust and maintain all ESC measures warranted as site development progresses.

- (1) ESC measures identified on construction drawings, including within a Stormwater Pollution Prevention Plan (SWPPP) and/or listed in the specifications, are representative of minimum measures that shall be maintained during construction. Additional controls may be required due to changing site conditions and shall be constructed in accordance with the 2002 Erosion and Sedimentation Controls Guidelines and the 2004 Connecticut Stormwater Quality Manual.
- (2) The contractor will use silt fencing, ECM berms, and earthen berms to divert flows from exposed soils during all construction phases of the site.
- (3) Runoff will be controlled by hay bale checks, ECM or stone berms to remove silt and suspended solids.
- (4) Discharges of sediment resulting in a deposition off-site are a violation and will require immediate remediation by the contractor. If sensitive areas are impacted such remediation will be supervised and methods dictated by the MPTN-NRP.
- (5) At no time will sediment laden water be discharged downstream of perimeter ESC measures. Where traditional sediment and control measures prove ineffective, flocculants will be required and used by the contractor at no additional cost to the owner.

e. MPTN-NRP has full jurisdiction over site ESC measures and methods. MPTN-NRP may at any time require additional controls or require relocation of existing controls to meet the site needs during construction.

f. At no time will work be conducted within the boundaries of a wetland. No temporary fill or placement of equipment is allowed. There shall be no transport in or through wetlands.

§ 2. Installation of Erosion Control Measures

a. Prior to any earth disturbing activities, all ESC measures shall be installed as shown on the ESC Plan or as directed by the Construction Manager or MPTN-NRP.

- (1) The limits of disturbance must be clearly marked in the field.
- (2) Existing vegetation shall be preserved wherever possible; trees to remain shall be protected before work begins.

- (3) All existing oil/grit separators and catch basins which will receive runoff from the site shall be cleaned and the contents properly disposed.
- (4) Perimeter protection shall be established utilizing by Erosion Control Mulch (ECM) for berms
 - (a) ECM shall consist of a 3:1 mixture of ground stumps to wood chips and the entire mixture reground together. Additional ECM should be produced and stockpiled for future maintenance of berms and temporary mulch for stabilization.
 - (b) When allowed by MPTN-NRP alternative (e.g. E.C. Socks) or traditional (e.g. silt fence) may be utilized. Sediment build-up along silt fence and ECM berms shall be removed when it is half the height of the barrier.
- (5) Hay bales shall be installed around all inlets to existing stormwater systems and wrap the top of all catch basins including throat with fabric to prevent sediment from entering existing drainage systems.
 - (a) The contractor shall replace clogged sedimentation bales as required.
 - (b) The contractor shall clean sediment from basins when accumulation of sediment exceeds 8" depth.
- (6) At no time will sediment laden water be discharged downstream of perimeter ESC measures. Where traditional sediment and control measures prove ineffective, flocculants will be required and used by the contractor at no additional cost to the owner.

b. Run-off Management

- (1) Sediment controls at the perimeter are the last line of defense on a construction site. Selection of additional controls requires that consideration be given to drainage areas, site limitations, and effectiveness of individual practices.
- (2) Temporary sediment traps must be excavated as necessary. Sediment traps shall be maintained and cleaned out to maintain the required storage volume.
 - (a) Temporary sedimentation traps shall be constructed as necessary to control run-off. At minimum provide 134 cy of storage per acre of disturbance.
 - (b) Temporary sedimentation traps are not to be located within 50 feet of the edge of a wetland or surface water body unless specifically authorized by MPTN-NRP.
 - (c) Runoff shall be directed towards the sedimentation traps by use of grading, channels and berms.
 - (i) Runoff velocity shall be controlled by hay bale checks, ECM or stone berms.
 - (ii) Runoff flow shall not be routed through areas of protected vegetation or revegetated slopes and other areas.
- (3) Early installation of final stormwater conveyance structures and basins is highly recommended.
 - (a) Rough excavation of final detention basins can be utilized as temporary sedimentation traps.
 - (b) After the contributing area has been permanently stabilized, such basins are to be cleaned and regraded to final design grade.
- (4) Temporary runoff from erosion and sedimentation controls shall be directed to BMPs such as vegetated swales.

c. Anti-Tracking

- (1) Install temporary construction entrances that will prevent tracking or washing of sediment onto paved surfaces at all vehicular access points to minimize tracking of sediment off-site.

- (2) Construction entrances shall be maintained in a condition that will prevent tracking or washing of sediment onto paved surfaces. A top dressing with additional stone or additional length shall be provided as conditions require.
- (3) All paved surfaces shall be cleaned daily to avoid traffic hazards and added sediment from entering existing stormwater structures.

d. Dust Control

The contractor is responsible for dust control and wind erosion throughout site construction activities. Dust control shall include, but is not limited to, sprinkling of water on exposed soils and haul roads. The use of chemicals including additives to water requires prior approval from MPTN-NRP.

e. Temporary Stabilization

- (1) All temporary and permanent seeding activity shall be conducted in accordance with the applicable provisions in the 2002 CT Erosion and Sedimentation Controls Guidelines, including seed bed preparation, liming and mulching.
- (2) Slopes greater than 2:1 with a height ten feet or greater shall be stabilized using turf reinforced matting, bonded fiber matrix hydroseed, or ECM mulch of at least four inches in thickness.
- (3) Areas damaged from heavy rainfall, severe storms or construction activity shall be repaired immediately and mulched.
- (4) All areas that remain disturbed but inactive for at least thirty days shall receive temporary seeding in accordance with the CT DEP guidelines referenced above.
- (5) Where construction activities have been permanently suspended for more than seven days, or when final grades are reached in any portion of the site, stabilization practices (including mulching and permanent seeding) will be implemented within three days.

f. Stock Piles

- (1) Stockpiles are not to be located within 50 feet of a wetland or waterbody unless specifically approved by MPTN-NRP.
- (2) Stockpile shall not be located within the drip line of any protected trees.
- (3) The side slopes of stockpiled material shall be no steeper than 2:1 and benched when the height exceeds thirty feet.
- (4) Appropriate ESC devices shall immediately be established around the perimeter of a stockpile.
 - (a) a continuous silt fence or ECM berm will be in place to divert water from entering the area.
 - (b) Stockpiles will have openings for access on the upgrade side only.
- (5) Stockpiles that are not to be used within thirty days shall be seeded and mulched immediately after formation or as directed by MPTN-NRP.
- (6) Excess material that will not be reused on-site shall be taken off-site immediately.

g. Dewatering

- (1) MPTN-NRP will be notified prior to any dewatering activities.
- (2) If continuous dewatering is required "dirt bags" or settling basins, properly designed to ensure sediment free discharge, shall be utilized.
- (3) All discharge points shall be located or constructed so as not to promote downstream channeling.
- (4) At no time shall discharge be directed directly into wetlands or water bodies

h. Inspection and Maintenance

- (1) The Contractor shall assign qualified personnel to inspect all ESC measures on-site to ensure that they are properly functioning.
 - (a) Inspections shall be conducted prior to each forecasted rainfall event.
 - (b) Post rainfall inspections shall be conducted within 24-hours of the end of a storm event that is 0.1 inches or greater.
 - (c) Regardless of rainfall, inspection of all ESC measures shall occur at least once every seven calendar days.
 - (d) All deficiencies and maintenance items noted within an inspection shall be corrected immediately by the Contractor.
- (2) MPTN-NRP will periodically inspect the site for proper ESC measures. The contractor shall correct any noted deficiencies by placing, repairing or replacing ESC measures within 24-hours or immediately if existing site conditions or forecasted weather events warrant.

i. Final Stabilization

- (1) Areas to be revegetated will be planted as soon as practicable immediately after final grading.
 - (a) Proper revegetation techniques shall be employed using native plant species (locally grown), proper seed bed preparation, fertilizer and mulching to protect germinating plants.
 - (b) Revegetation shall occur on cleared sites within 7 (seven) calendar days of final grading.
 - (c) A minimum of 4" of topsoil shall be placed on all disturbed surfaces which are proposed to be planted.
 - (d) MPTN NRP-RA shall determine the success of stabilization efforts. If necessary, that the area are not satisfactory stabilized, the contractor shall be responsible for replanting during the following growing season appropriate to the selected plant species.
- (2) Slopes greater than 2:1 with a height ten feet or greater shall be stabilized using turf reinforced matting, bonded fiber matrix hydroseed, or ECM mulch of at least four inches in thickness.
- (3) Final seeding shall be conducted in accordance with the applicable provisions in the 2002 CT Erosion and Sedimentation Controls Guidelines, including seed bed preparation, liming and mulching.
- (4) The contractor shall ensure that all temporary ESC measures are remove following final site stabilization.

§ 3. Additional Requirements for Sites Large than 1 acre

a. The discharge of stormwater from construction sites is regulated under the National Pollution Discharge Elimination System (NPDES), authorized by the Clean Water Act. The United States Environmental Protection Agency (EPA) has NPDES jurisdiction within Mashantucket.

b. Construction sites involving earth disturbance of one acre or greater require permit coverage from EPA. Earth disturbing activities are not to commence without permit coverage. Permit coverage requires, among other things, the preparation and implementation of a site specific Stormwater Pollution Prevention Plan (SWPPP).

c. All contractors responsible to comply with the SWPPP, shall have an authorized representative sign the NPDES permit certification, and maintain a copy of the SWPPP on-site at all times during the length of the contract.

d. Inspection and Maintenance

- (1) For each inspection, required by § 2, paragraph h., a report shall be prepared summarizing the scope of the inspection, name(s), signature(s) and qualifications of personnel making the inspection, the date(s) of the inspection, observations relating to the implementation of the SWPPP, and actions taken.
- (2) Inspection reports shall be delivered to MPTN-NPR within 24-hours of completion.
- (3) Inspection reports are to be retained for at least three years after the date of the inspection.
- (4) All deficiencies and maintenance items noted within a report shall be corrected immediately by the Contractor

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APPENDIX I: WATER TRANSMISSION & DISTRIBUTION STANDARD DETAILS

APPENDIX II: SEWER CONSTRUCTION STANDARD DETAILS

APPENDIX III: GAS SERVICE INSTALLATION DETAILS

TITLE 9. MPTN UTILITY STANDARDS**CHAPTER 1. EARTHWORK****§ 1. Earth, Excavation, Backfill and Fill****a. Separation of Surface Materials**

The contractor shall remove only as much of any existing pavement as is necessary for the prosecution of the work.

b. Width of Trench

Pipe trenches shall be made as narrow as practicable and shall not be widened by scraping or loosening materials from the sides. Every effort shall be made to keep the sides of the trenches firm and undisturbed until backfilling has been completed and consolidated.

Trenches shall be excavated with approximately vertical sides between the elevation of the center of the pipe and an elevation 1 foot above the top of the pipe.

c. Trench Excavation

Where pipe is to be laid in gravel bedding, the trench may be excavated by machinery to, or just below, the designated subgrade, provided that the material remaining at the bottom of the trench is no more than slightly disturbed.

d. Unauthorized Excavation

If the bottom of any excavation is taken out beyond the limits indicated or prescribed, the resulting void shall be backfilled with thoroughly compacted, screened gravel, if the excavation was for a pipeline, or with concrete, if the excavation was for a masonry structure.

e. Excavation Near Existing Structures

Attention is directed to the fact that there are pipes, drains, and other utilities in certain location.

As the excavation approaches pipes, conduits, or other underground structures, digging by machinery shall be discontinued and the excavation shall be done by means of hand tools. Such manual excavation when incidental to normal excavation shall be included in the work to be done under items involving normal excavation.

Where determination of the exact location of pipe or other underground structures is necessary for doing the work properly, the Contractor may be required to excavate test pits to determine such locations.

f. Elimination of Unsuitable Material

If material unsuitable for foundation is found at or below the grade to which excavation would normally be carried, the Contractor shall remove such material to the required width and depth and replace it with thoroughly compacted, screened gravel or concrete as directed.

g. Sheet piling and Shoring

The Contractor shall be responsible for supporting and maintaining excavations required hereunder, even to the extent of sheeting or shoring the sides and ends of excavations with the timber or steel sheet piling. The requirements of sheeting or shoring or the addition of supports shall not relieve the Contractor of his responsibility for their sufficiency.

All timbering shall be removed except that for the purpose of preventing injury to the piping or other structures, to other property or persons.

h. Removal of Water

Until final acceptance of the work, the Contractor shall pump out or otherwise remove and dispose of as fast as it may collect, any water, sewage or any other liquids which may be found or may accumulate in the excavations, regardless of whether it be water or liquid wastes from his own contract or from any existing conduits, works, or surface runoff.

There shall be upon the work at all times during the construction proper and approved machinery of sufficient capacity (including spare units kept ready for immediate use in case of breakdowns) to meet the maximum requirements for the removal of the water or other liquids and their disposal in such a manner as not to withdraw sand or cement from the concrete and so as not to interfere with the proper laying of pipe and/or masonry or the prosecution of work under this or other contract nor endanger existing structures.

i. Protection to Existing Structures, Vegetation

All existing walks, pipes, conduits, poles, wires, fences, stairways, curbing, property line markers, walls, buildings and other structures which do not require to be changed in location, shall be carefully supported and protected from injury by the Contractor and, in case of injury, they shall be restored by him without compensation thereof, to as good condition as that in which they were found.

j. Backfilling Trenches

As soon as practicable after the pipes have been laid or the structures have been built and are structurally adequate to support the loads, including construction loads to which the will be subjected, the backfilling shall be started and thereafter it shall proceed until completion.

- (1) Zone Around Pipe: The space between the pipe and bottom side of the trench shall be packed full by hand shovel with sand. In placing the material, care shall be taken that stones do not strike the pipe. The backfill under the pipe shall be thoroughly compacted using curved tamping bars. Sand backfill at the sides and up to the top of the pipe shall be compacted using approved hand tampers. Sand backfill up to a level of 1 foot above the top of the pipe shall be placed in 6-inch layers, leveled along the length and width of the trench, and thoroughly compacted using approved tampers. No sand shall be placed above the top of the pipe until sand under and at the sides of the pipe has been compacted. Care shall be taken in the use of mechanical or other tampers not to injure or move the pipe or cause the pipe to be supported unevenly.
- (2) Materials: The nature of the materials will govern both their acceptability for backfill and the methods best suited for their placement and compaction in the backfill. In general, material used for backfilling trenches and excavations around structures shall be suitable material which was removed in the course of making the construction excavations.

No stone or rock fragment larger than 12 inches in greatest dimension shall be placed in the backfill nor shall large masses of backfill material be dropped into the trench in such a manner as to endanger the pipeline. If necessary, a timber grillage shall be used to break the fall of material dropped from a height of more than 5 feet. Pieces of bituminous pavement shall be excluded from the backfill unless their use is expressly permitted, in which case they shall be broken up as directed.

- (3) Remainder of Trench: The remainder of the trench above the zone around the pipe shall be compacted by tamping, as directed or approved in accordance with the nature of the material.
- (4) Tamping: Compaction shall be accomplished by tamping or, under appropriate circumstances, rolling. The material shall be deposited and spread in uniform, parallel layers not exceeding 8 inches thick before compaction. Before the next layer is placed, each layer shall be tamped as required so as to obtain a thoroughly compacted mass. If necessary, the Contractor shall furnish and use an adequate number of power driven tampers, each weighing at least 20 lbs., for this purpose. Care shall be taken that the material close to the bank, as well as in all other portions of the trench, is thoroughly compacted. When the trench width and the depth to which backfill has been placed are sufficient to make it feasible, and it can be done effectively and without damage to the pipe, backfill may, on approval, be compacted by the use of suitable rollers, tractors, or similar powered equipment instead of by tamping. For compaction by tamping (or rolling), the rate at which backfilling material is deposited in the trench shall not exceed that permitted by the facilities for its spreading, leveling, and compacting as furnished by the Contractor.

If necessary to ensure proper compaction by tamping (or rolling), the material shall first be wet by sprinkling. However, no compaction by tamping (or rolling) shall be done when the material is too wet either from rain or too great an application of water to be compacted properly; at such times the work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compacting, or such other precautions shall be taken as may be necessary to obtain proper compaction.

- (5) Miscellaneous Requirements: Whatever method of compacting backfill is used, care shall be taken that stones and lumps shall not become nested and that all voids between stones shall be completely filled with fine material. Only approved quantities of stones and rock fragments shall be used in the backfill. The Contractor shall, as part of the work done under the items involving earth excavation and rock excavation as appropriate, furnish and place all other necessary backfill material.

k. Fill and Backfill Under Structures and Highways

All fill and backfill under structures and pavements adjacent to structures shall be compacted bank-run gravel containing not more than 5 percent material passing a 200 sieve. The entire backfill shall be compacted to 95 percent of maximum density at optimum moisture as determined by Method D of A.S.T.M. D1557-78 Standard Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb. (4.54kg) Rammer and 18-inch (457) Drop.

l. Disposal of Materials

Any excavated materials not required or not suitable for backfilling shall be removed from the site of the work and disposed of by the Contractor at his own expense.

§ 2. Rock Excavation

a. Work Included

The Contractor shall excavate within the lines and grades as shown or required and shall satisfactorily dispose of any rock, boulders, or existing concrete, stone or masonry which may be encountered in the work.

The word “rock” shall mean boulders and pieces of masonry or concrete exceeding one cubic yard in volume, or solid ledge rock which, in the opinion of the Engineer, requires for

its removal, drilling and blasting or wedging, or sledging, or barring, or breaking up with a power operated tool. No soft or disintegrated rock which can be removed with a hand pick or power operated excavator or shovel; no loose, shaken or previously blasted rock or broken stone in rock fillings or elsewhere; and no rock, exterior to the minimum limits allowed, which may fall into the excavation will be measured or allowed.

b. **Blasting and Explosives**

Where blasting is necessary, it shall be done in accordance with all ordinances and other pertinent regulations relative to the storing and handling of explosives and the firing of blasts. Such ordinances, regulations and orders shall not, however, relieve the Contractor of any responsibility for damages caused by him or his employees.

§ 3. Sand and Gravel

a. **Sand**

- (1) Sand shall be the fine granular material naturally produced by the disintegration of rock and shall be sufficiently free of organic material, mica, loam, clay and other deleterious substances. In no case shall sand containing lumps of frozen materials be used.
- (2) Gradation of Sand: In case visual inspection of the sand indicates that it is too coarse, the following gradation shall determine its acceptability:

| Sieve Size | Percentage Passing Sieves |
|------------|---------------------------|
| 3/8" | 100 |
| #4 | 95-100 |
| #8 | 65-90 |
| #16 | 45-75 |
| #30 | 30-50 |
| #50 | 10-22 |
| #100 | 2-8 |
| #200 | 3 |

b. **Bank-Run Gravel**

- (1) General: The Contractor shall furnish, place, and compact bank-run gravel as indicated on the drawings or directed and as herein specified.
- (2) Gravel: Bank-run gravel shall be granular material well graded from fine to coarse with a maximum size of 3 inches obtained from approved natural deposits and unprocessed except for the removal of unacceptable materials and stones larger than the maximum size permitted. It shall not contain vegetation, masses of roots, or individual roots more than 18 inches long or more than 1/2 inch in diameter. It shall be substantially free from loam and other organic matter, clay, and other fine or harmful substances.
- (3) Placing and Compacting: The bank-run gravel shall be spread in layers of uniform thickness not exceeding 8 inches before compaction and moistened or allowed to dry as directed. Then it shall be thoroughly compacted by means of suitable power-driven tampers or other power-driven equipment.

§ 4. Concrete**a. Work Included**

The Contractor shall furnish all labor, materials, tools and equipment necessary to construct the concrete work. This will include thrust blocks at pipe bends and tees in trenches, and for all miscellaneous concrete work ordered in the field to meet field conditions.

b. Materials

- (1) All materials are to be carefully selected so as to be free of deleterious amounts of acid, alkali and organic material. If these materials are stored at the job, they shall be placed where no foreign materials will be introduced and no deterioration of the cement will take place. Latest revisions of A.S.T.M. Specifications are to be followed.
- (2) Portland Cement shall conform to A.S.T.M. C150-85a.
- (3) Aggregate shall conform to A.S.T.M. C33-86.
- (4) Reinforcing bars shall conform to A.S.T.M. A615-85 or A.S.T.M. A617-84, Grade 40.

c. Concrete Quality

Concrete shall have a minimum ultimate 28 days compressive strength of 3000 lbs. per square inch using a maximum water content of 6 gallons per bag of cement. The aggregate shall be proportioned to give a dense concrete of this required strength using a maximum aggregate size of $\frac{3}{4}$ inches.

Concrete for pavement replacement shall conform to the requirements of the State of Connecticut, Department of Transportation.

d. Mixing and Placing

- (1) Concrete shall be mixed until there is a uniform distribution of the materials and shall be discharged completely before the mixer is recharged.
- (2) For job-mixed concrete, the mixer shall be rotated at a speed recommended by the manufacturer, and mixing shall be continued for at least one minute after all material are in the mixer.
- (3) Ready-mixed concrete shall be mixed and delivered in accordance with the requirements set forth in the standard specifications for Ready-Mixed Concrete A.S.T.M. C94-86a.
- (4) Provisions shall be made for maintaining concrete in a moist condition for at least 5 days after placement. Concrete shall be protected against wash by ground water in ditches.
- (5) Adequate equipment shall be provided for protecting the concrete from freezing. No frozen material or materials containing ice shall be used. No dependence shall be placed on salt or other chemicals for the prevention of freezing.
- (6) Admixtures shall be in conformance with the recommendations and requirements of Form 816 and shall be approved by the Engineer prior to use.

CHAPTER 2. WATER TRANSMISSION AND DISTRIBUTION

SubChapter 2.1. Water Main Design Requirements

The Mashantucket Pequot Tribal Utilities Department is a Connecticut recognized Public Water System

The following State of Connecticut Department of Health, Water Supplies Section standards have therefore been adopted.

(Rev. 26MAR14)

§ 1. Materials

a. Restricted Materials

- (1) Installation of Vinyl-Lined Pipe Restricted - No contractor or employee may install any vinyl-lined pipe containing tetrachloroethylene or other solvents deemed toxic by the Commissioner of Public Health in any water supply system of the Mashantucket Tribal Nation.
- (2) Installation of Asbestos Cement Pipe Restricted - No contractor or employee may install any asbestos cement pipe in any water supply system of the Mashantucket Tribal Nation.
- (3) Restriction on Use of Lead Solder in Potable Water Systems - No solder containing more than 0.2 per cent lead shall be used in making joints and fittings in any public or private potable water system of the Mashantucket Tribal Nation..

b. Material

- (1) Metallic and non-metallic materials may be used to construct component parts of a water system including, but not limited to , conduits, pipes, couplings, caulking material, protective linings and coatings, services, valves, hydrants, pumps, tanks and reservoirs; provided:
 - (a) The materials shall have a reasonable useful service life;
 - (b) The material shall be capable of withstanding the internal and external forces to which it may be subjected while in service;
 - (c) The material shall not cause the water to become impure, unwholesome, nonpotable or unhealthful;
 - (d) Materials and equipment shall be designed and selected with factors of safety included and installed as to mitigate corrosion, electrolysis and deterioration. When the possibility of a near future interconnection with another utility exists, some components such as pressure tanks and compressors may be designed for limited service life;
 - (e) Use of non-metallic pipe shall require a suitable tracer wire for pipe location;
 - (f) No material shall be allowed which does not meet standards established by the AWWA or other comparable standards;
- (2) Specification for material, equipment, and testing shall be in accordance with all applicable AWWA standards, the specified water utility which will eventually own the system, and the requirements of the Department of Health Services. Such Specifications shall include the following:
 - (a) Proper protection shall be given to metal surfaces by paints or other protective coatings;

- (b) All paints, liners or coatings proposed for use in a water supply system that will come in contact with the potable water must be approved by the Department of Health Services. Following final curing, disinfection and dissipation of the chlorine residual, water samples must be collected and tested in accordance with Section 19-13-B102 of the Regulation of Connecticut State Agencies.
 - (c) Cathodic protection, when required, must be designed and installed by competent technically qualified personnel.
- (3) Upon completion of the construction of the community water supply system, the well(s), storage tank(s), and appurtenances must be disinfected, in accordance with procedures established by the Department of Health Services;
- (4) Prior to acceptance and use, the design engineer shall supervise appropriate pressure testing of all piping and tanks for leakage to assure specified standards are met.
- c. Standards, Materials Selections

Pipe, fittings, valves and fire hydrants shall conform to the latest standards issued by the Mashantucket Pequot Tribal Utility Department (MPTN Utilities), AWWA, and/or NSF, if such standards exist. In the absence of such standards, material meeting applicable Product Standards and acceptable to the MPTN Utilities Department may be selected. Special attention shall be given to selecting pipe material which will protect against both internal and external pipe corrosion. Pipes and pipe fittings containing more than 8% lead shall not be used. All products shall comply with ANSI/NSF standards
- d. Permeation of System by Organic Compounds

Where distribution systems are installed in areas of groundwater contaminated by organic compounds:

 - (1) pipe and joint materials which are not subject to permeation of the organic compounds shall be used.
 - (2) non-permeable materials shall be used for all portions of the system including water main, service connections and hydrant leads.
- e. Used Materials

Water mains which have been used previously for conveying potable water may be reused provided they meet the above standards and have been restored practically to their original condition.
- f. Joints

Packing and jointing material used in the joints of pipe shall meet the standards of the AWWA and the Department. Pipe having mechanical joints or slip-on joints with rubber gaskets is preferred. Lead-tip gaskets shall not be used. Repairs to lead-joint pipe shall be made using alternative methods.

§ 2. Water Main Design

- a. Minimum Size

Sources of supply, treatment, pumping, transmission and storage facilities of sufficient capacity shall be maintained to provide flows in excess of the maximum flows experienced in the community water system, and in individual service zones within integrated systems. Whenever peak period consumption interrupts water service to consumers under normal condition, conservation measures that effectively reduce consumption shall be promptly instituted for the community water supply, and a program to provide sufficient supply,

treatment, pumping, transmission, and storage capacity to meet existing and projected peak period consumption shall be implemented.

(1) Transmission and Distribution System

- (a) The distribution system shall be of adequate size and design to maintain minimum normal operation pressures. Minimum distribution pipe diameter shall be 6 inches except in cul-de-sacs where the mains are not subject to being extended or as otherwise approved by the Department of Public Utility Control.
- (b) If fire protection is to be provided, minimum distribution pipe diameter shall be 8 inches.
- (c) All mains shall be installed in the paved roadways to allow all weather access and to facilitate repairs;

(2) Diameter

The minimum size of water main for providing fire protection and serving fire hydrants shall be six-inch diameter. Larger size mains will be required if necessary to allow the withdrawal of the required fire flow while maintaining the minimum residual pressure specified in paragraph b. of this section.

(3) Small Mains for Domestic Service

The minimum size of water main in the distribution system where fire protection is not to be provided should be a minimum of three (3) inches in diameter. Any departure from minimum requirements shall be justified by hydraulic analysis and future water use, and can be considered only in special circumstances.

b. Water Pressure

- (1) All service connections shall have a water pressure at the main of at least 25 psi under normal conditions. Where pressure is normally less than 25 psi, special provisions shall be made to furnish adequate service to the user.
- (2) Normal operating pressures, including peak demand conditions in the distribution main shall be between 35 psi and 125 psi at the service connection;
- (3) Where static pressures would exceed 125 psi, pressure reducing devices shall be provided on distribution mains;

c. Dead Ends

Insofar as practicable, the distribution system shall be designed so as to avoid dead ends in the mains. Suitable right-of-way easement control shall be provided to the proposed owner and operator and his assigns to permit future such extensions. Where a dead end line is to be used, an adequately sized blow-off shall be installed at the end of the line;

- (1) In order to provide increased reliability of service and reduce head loss, dead ends shall be minimized by making appropriate tie-ins whenever practical.
- (2) Where dead-end mains occur, they shall be provided with a fire hydrant if flow and pressure are sufficient, or with an approved flushing hydrant or blow-off for flushing purposes. Flushing devices should be sized to provide flows which will give a velocity of at least 2.5 feet per second in the water main being flushed. No flushing device shall be directly connected to any sewer.

d. Fire Protection

When fire protection is to be provided, system design should be such that fire flows and facilities are in accordance with the requirements of the Factory Mutual and MPTN Fire Dept.

§ 3. Distribution System Appurtenances

a. Valves

- (1) Essential water supply valves shall be maintained in operating conditions.
- (2) Sufficient isolation valves shall be provided on water mains so that inconvenience to customers and sanitary hazards will be minimized during repairs and flushing. At intersections, valves shall be installed on all connecting mains.
- (3) Sufficient valves shall be provided on water mains so that inconvenience and sanitary hazards will be minimized during repairs. Valves should be located at not more than 500 foot intervals in commercial districts and at not more than one block or 800 foot intervals in other districts. Where systems serve widely scattered customers and where future development is not expected, the valve spacing should not exceed one mile.

b. Hydrants

Whenever fire protection is required the water system shall be designed and constructed in accordance with recommendations of the, MPTN Fire Dept., Factory Mutual Ins. Co., and the MPTN Utilities Department. No fire hydrants shall be permitted unless the community water system has at least 150,000 gallons of water in atmospheric storage. Hydrants should be maintained in accordance with NFPA 25 Section 4.4.2.

(1) Location and Spacing

Hydrants should be provided at each street intersection and at intermediate points between intersections as recommended by the MPTN Fire Dept. and Factory Mutual. Generally, hydrant spacing may range from 350 to 600 feet depending on the area being served.

(2) Valves and Nozzles

Fire hydrants should have a bottom valve size of at least five inches, one 4-1/2 inch pumper nozzle and two 2-1/2 inch nozzles.

(3) Hydrant Leads

The hydrant lead shall be a minimum of six inch in diameter. Auxiliary valves shall be installed in all hydrant leads.

(4) Drainage

Hydrant drains should be plugged. When the drains are plugged the barrels must be pumped dry after use during freezing weather. Where hydrant drains are not plugged, a gravel pocket or dry well shall be provided unless the natural soils will provide adequate drainage. Hydrant drains shall not be connected to or located within 10 feet of sanitary sewers or storm drains.

c. Air Release

(1) Air Relief Valves

At high points in water mains where air can accumulate, provisions shall be made to remove the air by means of air relief valves. Automatic air relief valves shall not be used in situations where flooding of the manhole or chamber may occur.

(2) Air Relief Valve Piping

The open end of an air relief pipe from automatic valves shall be extended to at least one foot above grade and provided with a screened, down-facing elbow. The pipe from a manually operated valve should be extended to the top of the pit. Use of manual air relief valves is recommended wherever possible.

(3) Chamber Drainage

Chambers, pits or manholes containing valves, blow-offs, meters, or other such appurtenances to a distribution system, shall not be connected directly to any storm drain or sanitary sewer, nor shall blow-offs or air relief valves be connected directly to any sewer. Such chambers or pits shall be drained to the surface of the ground where they are not subjected to flooding by surface water, or to absorption pits underground.

§ 4. Installation of Mains

a. Trench Details

When installing pipe, care must be taken to keep the pipe clean. Trenches shall be kept as free of water as is possible;

When laying of pipe is interrupted overnight or for any longer period of time, the open end of the pipe shall be plugged tightly and the open trench covered with wood or steel covers;

Installation and pressure testing shall incorporate the provisions of the AWWA Standards and/or corresponding installation procedures;

A continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material, free of detrimental substances, shall be used. That backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. During pipe laying, stones, boulders and any other significantly detrimental materials found in the trench shall be removed for a depth of at least six inches below the bottom of the pipe;

All pipe shall be provided with a minimum earth cover of 4.5 feet. When rock blasting is necessary, ample excess depth shall be provided to allow for a suitable depth of bedding material between the pipe bottom and the rock base. Where frost can be expected to occur deeper than 4.5 feet, additional pipe cover shall be provided to suit. The mains should have adequate cover over the top of the pipe, using suitable backfill material, for protection against surface loads. For river or stream crossings where the water main may be exposed to the air, the water main shall be protected against freezing by an alternate means;

(1) Standards

Specifications shall incorporate the provisions of the AWWA standards and/or manufacturer's recommended installation procedures.

(2) Cover

All water mains shall be covered with sufficient earth or other insulation to prevent freezing.

(3) Blocking

All tees, bends, plugs and hydrants shall be provided with reaction blocking, tie rods or joints designed to prevent movement.

(4) Pressure and Leakage Testing

All types of installed pipe shall be pressure tested and leakage tested in accordance with the latest edition of AWWA Standard C600.

(5) Disinfection

All new, cleaned or repaired water mains shall be disinfected in accordance with AWWA Standard C651. The specifications shall include detailed procedures for the adequate flushing, disinfection, and microbiological testing of all water mains. In an emergency or unusual situation, disinfection procedure shall be discussed with the Department.

(6) External Corrosion

- (a) Provide for a system of records by which the nature and frequency of corrosion problems are recorded. On a plat map of the distribution system, show the location of each problem so that follow-up investigations and improvements can be made when a cluster of problems is identified.
- (b) If needed, perform a survey to determine the existence of facilities or installations that would provide the potential for stray, direct electric currents. Also, determine whether problems are caused by the users of water pipes as grounds for the electrical system.
- (c) In previously unexplored areas where aggressive soil condition are suspect, or in areas where there are known aggressive soil conditions, perform analyses to determine the actual aggressiveness of the soil.
- (d) If soils are found to be aggressive, take necessary action to protect the water main, such as by encasement of the water main in polyethylene, provision of cathodic protection (in very severe instances), or using corrosion resistant water main materials.

b. Provisions for Sanitary and Storm Sewers

- (1) Whenever possible, water and sewer lines (sanitary and storm) shall be located in separate trenches at least 10 feet apart. Where laid in the same trench, the water pipe shall be laid on a shelf at least 18 inches above the sewer pipe and at least 12 inches, but preferably 18 inches, horizontally from the side of the sewer pipe. The horizontal separating distance between a sanitary sewer manhole and a water line shall be 10 feet.
- (2) Where water and sewer inches cross, a minimum vertical distance of 18 inches shall be maintained between the water and sewer line with the sewer at the lower elevation. At crossings, pipe joints shall be spaced as far from the crossing as possible;
- (3) For force sewer lines there shall be no deviation from the 10 foot horizontal separation and the 18 inch vertical separation distances;
- (4) When it is not possible to satisfy the requirements in paragraph (17) of this subsection above one or more of the following precautions may be approved by the Department of Health Services as acceptable alternatives:
 - (a) Sleeving of the sewer;
 - (b) Concrete encasement of the sewer;
 - (c) The use of a thicker-walled sewer pipe (pressure testing will be required);
 - (d) Concrete encasement of the water pipe;
 - (e) The use of thicker-walled water pipe;
 - (f) The design engineer may also propose other precautionary measures which will be subject to review and approval;

(5) General

The following factors should be considered in providing adequate separation:

- (a) material and type of joints for water and sewer pipes,
- (b) soil conditions,
- (c) service and branch connections into the water main and sewer line,
- (d) compensating variations in the horizontal and vertical separations,
- (e) space for repair and alterations of water and sewer pipes,
- (f) off-setting of pipes around manholes.

(6) Parallel Installation

Water mains shall be laid at least 10 feet horizontally from any existing or proposed sewer/septic tank absorption field trench. The distance shall be measured edge to edge. In cases where it is not practical to maintain a ten foot separation, the MPTN Utilities Department may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the water main closer to a sewer, provided that the water main is laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.

(7) Crossings

Water mains crossing sewers shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer with preference to the water main located above the sewer. At crossings, one full length of water pipe shall be located so both joints will be as far from the sewer as possible. Special structural support for the water and sewer pipes may be required.

(8) Exception

The MPTN Utilities Department must specifically approve any variance from the requirements of Sections D.2.b and D.2.c of this report when it is impossible to obtain the specified separation distances. Where sewers are being installed and Section D.2.b and c cannot be met, the sewer material shall be water works grade 150 psi (1.0 Mpa) pressure rated pipe or equivalent and shall be pressure tested to ensure water tightness.

(9) Force Mains

There shall be at least a 10 foot horizontal separation between water mains and sanitary sewer force mains. There shall be an 18 inch vertical separation at crossings as required in Section D.2.c of this report.

(10) Sewer Manholes

No water pipe shall pass through or come in contact with any part of a sewer manhole.

(11) Separation of Water Mains from Other Sources of Contamination

Design engineers should exercise caution when locating water mains at or near certain sites such a sewage treatment plants or industrial complexes. On site waste disposal facility including absorption field must be located and avoided. The engineer must contact the MPTN Utilities Department to establish specific design requirements for locating water mains near any source of contamination.

c. Surface Water Crossings

- (1) For river or stream crossings where the water main may be exposed to the air, the water main shall be protected against freezing by an alternate means;
- (2) Surface water crossings, whether over or under water, present special problems. The MPTN Utilities Department should be consulted before final plans are prepared.

d. Above-water Crossings

The pipe shall be adequately supported and anchored, protected from damage and freezing, and accessible for repair or replacement

e. Underwater Crossings

A minimum cover of two feet shall be provided over the pipe. When crossing water courses which are greater than 15 feet in width, the following shall be provided:

- (1) the pipe shall be of special construction, having flexible, restrained or welded watertight joints,
- (2) valves shall be provided at both ends of water crossings so that the section can be isolated for testing or repair, the valves shall be easily accessible, and not subject to flooding; and the valve closest to the supply source shall be in a manhole,
- (3) Permanent taps shall be made on each side of the valve within the manhole to allow insertion of a small meter to determine leakage and for sampling purposes.

§ 5. Cross-Connection/Interconnections

a. Cross-connections

Permissible Arrangements for Connections to Public Water Supply Lines

(1) Definitions

- (a) “Air Gap” means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or outlet supplying water to a tank plumbing fixture, or other device, and the flood level rim of the receptacle. The vertical physical separation shall be at least two times the inside diameter of the water inlet pipe above the flood rim level but shall not be less than one inch
- (b) “Air Vent Type Backflow Preventer” means a device containing two independently operating check valves separated by a chamber which can automatically vent to the atmosphere if backflow occurs.
- (c) “Atmospheric Vacuum Breaker” means a mechanical device which automatically air vents a pipeline to prevent back-siphonage.
- (d) “Auxiliary Source” means (a) a water supply which is not approved for potable use such as a pond, river, open storage tank, or large swimming pool; (b) potable water which has become un-potable such as by the addition of chemicals or from contamination while the water is being stored or held in reserve.
- (e) “Double Check Valve Assembly” (DVCA) means a device which contains two independently acting check valves located between two tightly closing shut-off valves and fitted with properly located test cocks.
- (f) “Existing Fire Sprinkler System” means a sprinkler system installed prior to October 1, 1992 and not having undergone substantial renovations, alterations or additions representing more than 50% of the replacement cost of the existing system at the time of renovation, alteration or addition after July 1, 1993.

- (g) “Fire Sprinkler System” for fire protection purposes means an integrated system of underground and overhead piping designed to provide fire protection for a building or structure. The installation includes one or more automatic water supplies. The portion of the sprinkler system aboveground is a network of specially sized or hydraulically designed piping installed in a building, structure, or area generally overhead, and to which sprinklers are attached in a systematic pattern. The valve controlling each system riser is located in the sprinkler riser or its supply piping. Each sprinkler system riser includes a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.
 - (h) “Hose Bibb Vacuum Breaker” means an atmospheric vacuum breaker designed to be attached to an outlet having a hose connection thread.
 - (i) “New Fire Sprinkler System” means a sprinkler system installed after October 1, 1992 or a sprinkler system which has undergone substantial renovations, alterations or additions representing more than 50% of the replacement cost of the existing system at the time of renovation, alteration or addition after July 1, 1993.
 - (j) “Owner” means the customer of a water utility.
 - (k) “Pressure Vacuum Breaker” means a device which contains a spring loaded check valve and a spring loaded atmospheric vent which opens when the pressure approaches atmospheric. The unit shall include two tightly closing shut-off valves located at each end of the device and two test cocks properly located for testing the device.
 - (l) “Reduced Pressure Principle Backflow Preventer” (RPD) means a device containing within its structure a minimum of two independently acting, approved check valves, together with an automatically operating pressure differential relief valve located between the two check valves. The first check valve reduces the supply pressure a predetermined amount so that during normal flow and cessation of normal flow the pressure between the checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shut-off valves located at each end of the device and each device shall be fitted with properly located test cocks.
 - (m) “Siamese Connection” means an inlet equipped with one or more couplings to which a fire hose can be attached and through which water can be delivered by a fire department pumper to a sprinkler system.
 - (n) “Toxic or Objectionable Substance” means any compound which could affect the public health, the pot ability or the aesthetic quality of the water.
- (2) Air Gap
- An air gap is required between all potable water lines and equipment or systems which may be subject to contamination.
- (3) Reduced Pressure Principle Backflow Preventer
- (a) A reduced pressure principle backflow preventer (RPD) is required on a line to all facilities where toxic or objectionable substances are used in addition to the required air gap, vacuum breaker or RPD on individual pieces of equipment. Where such substances are used in a specific area, and RPD on the line to that area may be used in place of the RPD on the line to the facility.

- (b) A reduced pressure principal backflow preventer (RPD) or an air gap shall be installed in the following instances:
 - (i) On a line to fire sprinkler systems (including tanks) where chemicals are added or to foam firefighting systems;
 - (ii) On a line to pressurized water systems on ships;
 - (iii) On a line used to supply car wash facilities where pressure is boosted;
 - (iv) On a line to irrigation or lawn sprinkler systems where chemicals are added;
 - (v) On a line to all boiler systems where chemicals are added;
 - (vi) On a line to heat exchangers where chemicals are added;
 - (vii) On a line to solar heating systems where chemicals are added;
 - (viii) On a line to new fire sprinkler systems with any Siamese connections;
 - (ix) Effective January 1, 1999, on a line to all existing fire sprinkler systems with any siamese connections unless such systems are systems are equipped with a DCVA. The owner shall have in place either an RPD or a DCVA or an air gap on such systems. Where chemicals are added to such systems, the owner shall install an RPD pursuant to subparagraph (A) of this subdivision of the Regulations of Connecticut State Agencies.
 - (x) On a line to plating tanks or areas. No potable water use will be allowed downstream of the device pursuant to Section 19-13-B38a(e)(2) of the Regulations of Connecticut State Agencies.
- (c) A RPD or an air vent type backflow preventer or an air gap in the following instances:
 - (i) Water supply lines to all boiler systems where chemicals are not added;
 - (ii) Water supply lines to carbonators for beverage machines, water conditioning systems, and commercial ice making equipment;
 - (iii) Water supply lines connected to solar heating systems where chemicals are not added and heat exchangers where chemicals are not added;
 - (iv) Water supply lines to storage tanks used for fire protection where chemicals are not added.
- (4) Vacuum Breaker.
 The owner shall install either an atmospheric vacuum breaker or a pressure vacuum breaker or an air gap in the following instances:
 - (a) Irrigation or lawn sprinkler systems where chemicals are not added;
 - (b) Flush valve toilets;
 - (c) Inlets which are or may become submerged, except where an RPD is required pursuant to Sections 19-13-B38a(c)(2) of the Regulations of Connecticut State Agencies;
 - (d) Hemodialysis units;
 - (e) At marinas and docks on all hose bibbs or other outlets to which a hose may be connected.
- (5) Installation and Maintenance.
 The devices required by Section 19-13-B38a of the Regulations of Connecticut State Agencies shall be purchased, owned, installed, and maintained by the facility in compliance with the following conditions:

- (a) New devices shall conform to the revision of American Water Works Association Standard C510, C511 or the revision of the applicable standard of the American Society of Sanitary Engineering in effect at the time of building permit application.
- (b) There shall be no connection made for potable water use downstream of an RPD and upstream of the equipment or systems subject to contamination except where the device is installed on the service line and the required air gap, vacuum breaker, or RPD is provided on all individual pieces of equipment.
- (c) Each RPD shall be located in a room or structure that is well lighted, properly drained, and not subject to flooding. Each RPD shall be easily accessible for repair, testing, and inspection.
- (d) Each DCVA shall be accessible for testing and inspection.
- (e) If an RPD or DCVA cannot be removed from service for maintenance and testing during normal working hours, than a second device of the same type shall be installed in parallel so as to permit inspection and repair of either unit.
- (f) The public water utility shall test annually each RPD, DCVA and pressure vacuum breaker and maintain records of the test. Any malfunctioning device shall be promptly restored to proper operating condition by the owner. A copy of the results shall be forwarded to the State Department of Health Services as a part of the annual cross connection survey report. All tests must be performed by a backflow preventer tester who has passed a written and laboratory examination administered by the State Department of Health Services.
- (g) Atmospheric vacuum breakers shall be located beyond the last control valve prior to the first outlet. All vacuum breakers shall be installed at an elevation higher than any outlet according to manufacturer's instructions.
- (h) An atmospheric vacuum breaker shall be installed so that it is not subject to backpressure or continuous operating pressure of more than twelve (12) hours duration. Where vacuum breakers are to be installed under Section 19-13-B38a(d) of the Regulations of Connecticut State Agencies and a continuous operating pressure exists, a pressure vacuum breaker shall be used.
- (i) An atmospheric vacuum breaker shall be installed in such a fashion that it will not be subject to corrosion which will render it inoperative.
- (j) Any time a device is required to be installed on a fire sprinkler line, the customer shall submit to the water utility written approval of the proposed installation and device from the Fire Marshal and the customer's insurance underwriter.

(6) Protection of Distribution System

Each supplier of water to a community public water supply system shall report the following information to the state health department by March 1 of each year covering the preceding calendar year.

- (a) A list of all consumer premises where:
 - (i) A private source of water supply is known to exist.
 - (ii) Toxic or objectionable chemical or biological substances are used in water solution on public commercial or industrial premises.
 - (iii) Water pressure is raised by pumping on other than residential premises above that furnished by the supplier.
 - (iv) There is a water storage tank for other than residential use, commercial swimming pool or commercial water filter.
 - (v) There is known to be a sprinkler system for either fire protection or irrigation.

- (b) Date of last inspection of each consumer premises listed in item (a.). Also the number of violation detected of the PHC Regulations relation to water distribution systems, and the status of corrections of these violation. Listings under item (a.)(B.) shall be inspected at least once each year and the remaining items shall be inspected at least once every five years.

(7) Cross-Connection

There shall be no connection between the distribution system and any pipes, pumps, hydrants, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into the system. Each water utility shall have a program conforming to state requirements to detect and eliminate cross connections.

b. Interconnections

(1) Cross-Connections Between Water Supplies Prohibited

- (a) No physical connection between the distribution system of a public potable water supply and that of any other water supply shall be permitted, unless such other water supply is of safe sanitary quality and the interconnection of both supplies is approved by the MPTN Utilities.
- (b) Effective December 31, 1989, the State Department of Health Services shall prohibit the use of double check valve assemblies except those assemblies allowed pursuant to section 19-13-B38a(c)(2)(1) of the Regulations of Connecticut State Agencies.

(2) Connections with Other Water Sources

No physical connection between piping carrying water from a public water supply and piping carrying water from any other source shall be permitted unless such other water supply is of safe, sanitary quality and the interconnection is approved by MPTN Utilities.

(3) Service Pipes

No physical connection between the distribution system of a public water supply and any non-public water supply is permitted except as provided for in Section 19-13-B37 of the Regulations of Connecticut State Agencies;

(4) Interconnections

The approval of the MPTN Utilities Department shall be obtained for interconnections between potable water supplies

c. Cooling Water

Neither steam condensate, cooling water from engineer jackets, nor water used in conjunction with heat exchange devices shall be returned to the potable water supply.

d. Water Loading Stations

Water loading stations present special problems since the fill line may be used for filling both potable water vessels and other tanks or contaminated vessels. To prevent contamination of both the public supply and potable water vessels being filled, the following principles shall be met in the design of water loading stations:

- (1) there shall be no backflow to the public water supply,
- (2) the piping arrangement shall prevent contaminant being transferred from a hauling vessel to others subsequently using the station,
- (3) hoses shall not be contaminated by contact with the ground.

§ 6. Water Services and Plumbing**a. Plumbing****(1) Service Pipes**

- (a) The size, design, material, and installation of the service pipe shall conform to the reasonable requirements of the utility that will eventually own the water system; provided, however, that the minimum size of the pipe shall be not less than $\frac{3}{4}$ inch and that the use of non-metallic pipe shall include a suitable tracer wire for pipe location;
- (b) All service pipes shall be installed below the frost line to prevent freezing;
- (c) Service pipes shall not be connected to hydrant branch lines, and they shall not cross intervening properties even with the protection of easements. If fire protection to the customer's property is required, there shall be a separate service connection and separate service pipe paralleling the domestic service pipe to the customer's place of consumption;
- (d) The service pipe shall be connected to a single-service corporation at the main, installed with a suitable gooseneck and be sufficiently flexible to prevent fracture from expansion or contraction. It shall be run perpendicular from the water main to the customer premises and be free from any tee, branch connection, irregularity or defect;
- (e) The service pipe shall be installed with a suitable shutoff valve and curb box at the property line. There shall also be a suitable shutoff valve at the interior of the premises. In the case of service pipes dedicated for fire protection, there shall be a detector check meter installed on the pipe;
- (f) No physical connection between the distribution system of a public water supply and any non-public water supply is permitted except as provided for in Section 19-13-B37 of the Regulation of Connecticut State Agencies;

(2) Plumbing

Water services and plumbing shall conform to relevant local and/or state plumbing codes, or the applicable National Plumbing Code. Solders and flux containing more than 0.2% lead and pipe and pipe fittings containing more than 8% lead shall not be used.

b. Service Meters

Each service connection shall be separately metered. The service line in each dwelling or office unit shall contain two ball valves and an AWWA certified meter adaptive to a remote reading device setting. The facility or leased tenant shall be responsible for providing the water meters to each customer premise at its own expense.

SubChapter 2.2 Technical Specifications and Requirements

(Rev. 27MAR14)

§ 1. General Conditions

- (1) Water service and house sewer pipes shall be laid in separate trenches at least ten feet apart. When approved to be laid in the same trench due to warranted conditions, the water pipe shall be laid on a bench at least 18" above the top of the sewer pipe and 18" from the side of the sewer pipe.
- (2) Water main and services shall maintain a minimum of 10 ft distance from a sewer force main. Should it not be possible to maintain the 10 ft separation distance, upon approval from MPTN Utilities Dept, the force main will need to be encased in concrete in lieu of required separation distance. All water main bell joints located within the required 10 ft separation distance shall have bell repair couplings installed to provide and additional gasket at joints.
- (3) Minimum cover on water mains and services shall be 4'-6".
- (4) In general, separate utilities (each separate residential unit in a condominium) shall be separately metered and have separate water services.
- (5) Water mains should be at least 10' from any building.
- (6) Curb boxes should be at least 6' from any building.
- (7) Minimum size of any main line water main to supply a hydrant – 8".
- (8) Hydrant branch line size – 6" minimum.
- (9) Minimum size of any water service installed from the main to property line shall be 1-1/2".

(10) Meters:

Exterior Meters located in meter pits shall be so located as to be accessible to the main distribution line for proper service connection. The meter pit shall be installed as to be unaffected by climatic conditions, reasonably secure from damage and in areas not subject to vehicle traffic if possible.

Interior Meters installed inside buildings shall be located as near as possible to the point where the service pipe enters the building and so as to be reasonable secure from damage and readily accessible for reading.

(11) Water Mains:

In so far as practicable shall be designed to avoid dead ends. Where dead ends are necessary, hydrants or blow-offs for the purpose of flushing mains must be installed.

- (12) Remote Water Meter reading devices are required on all units.
- (13) Backflow Prevention Devices are required on all commercial service and for other potentially contaminating situations.
- (14) No backfilling of pipe shall be done until an inspection has been made by a designated representative of the Owner or MPTN Department of Utilities, and installation has been approved

§ 2. Ductile Iron Pipe and Fittings

a. Quality Control

(1) Manufacturers' Recommendations:

The Contractor shall submit for approval, six (6) copies of the manufacturer's printed recommendations for the storage, protection, handling and installation of the ductile

iron pipe, pipe fittings and appurtenances, which shall be strictly adhered to by the Contractor.

(2) Certificate of Compliance:

Each shipment of pipe, pipe fittings, and appurtenances, shall be accompanied by the manufacturer's notarized certificate certifying conformance with all requirements of these specifications.

b. Products

(1) General:

All materials to be incorporated into the work shall be new, purchased specifically for this contract. All material shall be made in the United States of America.

(2) Ductile Iron Pipe:

Ductile iron pipe shall be Class 52, and shall conform to AWWA specifications C150 and C151, latest revision. Ductile iron pipe shall have push-on type joints with the exception that mechanical joints shall be used at all fitting and along straight pipe sections where mechanical joint restraint is required. All pipe shall have a double bituminous seal coating on all exterior surfaces. Pipe shall be manufactured in USA by Atlantic States Cast Iron Pipe Co., or approved equal.

(3) Fittings:

Fittings and plugs for use with the ductile iron pipe specified shall be ductile iron, with a working pressure rating of not less than 250 psi, class 350 conforming to AWWA C153, latest revision, and shall have mechanical joints. Fittings shall be manufactured by Union, Tyler Mechanical Joint, or approved equal.

(4) Transitional Couplings:

(5) The center sleeve and end rings of couplings shall be made of ductile iron, meeting or exceeding ASTM A536. The coupling shall accommodate the entire O.D. range in the specified size by use of interchangeable color-coded end rings and gaskets.

(6) The coupling shall be made of virgin rubber compound for water use. The SBR shall meet or exceed ASTM D2000-3-BA715. The gasket shall have raised lettering and sizing and state the proper color code for the appropriate end ring.

(7) The coupling shall be equipped with stainless steel bolts, washers, and nuts, and conform to the latest edition of AWWA C111.

(8) Transition/Repair couplings shall be as manufactured by Ford Model FC2A-SH, Smith Blair Model 441, Romac Model 501, Cascade Waterworks Model CTC, or approved equal.

(9) Repair Clamp shall be as manufactured by Smith Blair Model 226 or 227, Dresser Model 360 or approved equal.

(10) Straight connections between two ductile iron pipe sections shall be made by ductile iron solid sleeves with Mega lug restraints.

(11) Joints:

(12) Push-on and mechanical type joints for pipe as specified above shall conform to AWWA C111, latest revision. Gasket material for all jointing requirements shall be styrene butadiene (SBR).

(13) Expansion Joints shall be flexible joint single ball or double ball type and shall be manufactured by EBAA Iron.

(14) Cement Mortar Lining:

Interior pipe and fitting surfaces shall be covered with a double cement-mortar continuous lining not less than 1/16" thick, of materials, and applied in accordance with AWWA/ANSI C104/A21.4, latest revision.

- (15) Storage of Materials:
- (16) Pipe and related materials shall be stored in locations and in a manner approved by the Owner Representative. The locations and manner of storage shall be as to minimize handling of the materials.
- (17) The Contractor shall, at all times, be solely responsible for the safe storage of all materials.
- (18) Testing:
- (19) Testing of ductile iron pipe shall be done in accordance with AWWA C151, latest revision.
- (20) Testing of ductile iron fittings shall be done in accordance with AWWA C153, latest revision.
- (21) Testing of jointing material shall be done in accordance with AWWA C111, latest revision.
- (22) Testing of the interior coating shall be done in accordance with AWWA C104, latest revision.
- (23) Certified test reports shall be submitted by the Pipe manufacturer.
- (24) The Owner Representative shall be notified at least ten (10) days in advance of the date and location of the testing in order to witness the tests.
- (25) The Contractor shall furnish to the Owner Representative notarized test reports by an independent testing laboratory, which show compliance of all materials furnished to the requirements specified herein. The test reports shall indicate results and methods employed.
- (26) Joint Restraint:
- (27) Restraining devices shall be used where indicated, directed or as required. Joint restraint shall be concrete thrust block and mechanical restraint joints. Mechanical joint restraint shall be manufactured by EBAA Iron, of type Mega-Lug pattern, Model 1100 for mechanical joints.
- (28) Restraining devices shall be utilized on all mains under the following conditions:
 - (i) Pipeline direction changes (tees, bends)
 - (ii) Dead end lines (caps, plugs, valves)
 - (iii) Transition pieces (reducers)
 - (iv) Thrust restraint shall be provided via restrained joint, ductile iron pipe meeting AWWA C151/A21.512 and AWWA C111/A21.11. Restrained joint pipe lengths (restrained length) shall be sufficient to restrain thrust imparted by 1½ times the anticipated working pressure but not less than 200 psi.
 - (v) Thrust restraint utilizing tie-rods shall be utilized on vertical bends from MJ Bend to MJ Bend or as directed by the Owner or specifically indicated. Tie-rod diameters shall be 2 times the diameter required to restrain the main. All rods shall be protected from corrosion with two coats of bituminous paint or epoxy.

c. Pipe Installation

- (1) General:
- (2) All pipe shall be installed in accordance with AWWA C600, latest revision and manufacturer requirements.
- (3) All pipe and accessories shall be carefully inspected by the Contractor for defects before installation and all defective unsound or damaged materials shall be rejected.
- (4) The Owner Representative will make such additional inspections as he deems necessary and the Contractor shall furnish all necessary assistance for such inspection.
- (5) Proper implements, tools, and facilities satisfactory to the Owner Representative shall be provided by the Contractor for the proper and satisfactory execution of the work.
- (6) Pipe, accessories, and appurtenances shall be new and unused, and shall be of the types and materials specified, as indicated or as directed.
- (7) The interior of pipe and fittings shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations.
- (8) Pipelines shall be constructed in dry trenches and shall not be laid when the conditions of the trench or the weather is unsuitable for such work.
- (9) The trench bottom and gravel bedding shall be shaped and compacted to give substantially uniform unyielding circumferential support to the lower fourth of the full length of each pipe.
- (10) Holes for the bells shall be excavated so that after placement the pipe and coupling receive uniform bearing pressure from the trench bottom.
- (11) Each pipe shall be laid to the line and grade and in such a manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line.
- (12) As the work progresses, the interior and exterior of the pipes and couplings shall be cleaned of all dirt and superfluous material of every description.
- (13) When required to keep interior of pipe clean, a suitable drag shall be kept in the pipe and pulled forward past each joint immediately after the jointing has been completed.
- (14) At times when work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth or other substance will enter the pipe or fitting.
- (15) Any pipe that has been disturbed after lying shall be taken up and re-laid.
- (16) All materials found to be defective during the progress of the work will be rejected by the Owner Representative and the Contractor shall promptly remove such defective material from the site of the work and replace with new material at no additional expense to the Owner.
- (17) The Contractor shall be responsible for the safe storage and proper handling of all materials.
- (18) No shims or mounds of earth shall be used to raise the pipe to grade.
- (19) All pipe shall be maintained accurately to the required line and grade.
- (20) No pipe shall be covered until the Owner Representative has inspected the joints.
- (21) The pipeline shall not be used to convey trench drainage during construction.
- (22) Pipes shall be protected at all times during construction against flotation. They shall be thoroughly secured, properly supported and bedded to prevent settlement or disturbance. Compaction of bedding and backfill material shall be in strict accordance with Section 02200, EARTHWORK.
- (23) Bends, crosses, tees, caps, plugs, valves, and other appurtenances, shall be strapped and clamped where indicated and/or as directed. Steel bars, rods and plates shall be of

structural steel. Straps, bridle rods, clamps, anchors and such other parts shall be provided to the details as directed and as approved. After installation, all parts of the strapping and clamping devices shall be given two (2) heavy coats of an approved coal-tar base protective coating.

d. Jointing

- (1) No pipes shall be jointed until couplings and ends of pipe have been inspected to determine that the joint surfaces are free from any defects in materials or workmanship, and free from dirt or other foreign matter.
- (2) Pipe, pipe fittings and accessories shall be stored, installed, joined and protected by the Contractor in strict accordance with the printed recommendations of the manufacturer of the piping material, and as approved.
- (3) Field assembled joints shall be checked with a suitable gauge as recommended by the manufacturer to ensure that the rubber rings are properly located.
- (4) If inspection indicates that the rings are improperly located, the Contractor shall disassemble, and properly reinstall the pipe.
- (5) Pipe stoppers shall be installed, sealed and blocked in such a manner as to prevent any leakage and so as to withstand an internal hydrostatic pressure of not less than 5 psi.
- (6) Timber blocking shall be of adequate size and arrangement to prevent the stopper from being blown off the line.
- (7) Timber bracing shall extend back to the undisturbed end of the trench.

PIPE DEFLECTION ALLOWANCES (FULL LENGTH PIPE)

Maximum permissible deflection, in.*

| Size of Pipe | Maximum Joint Deflection in Degrees | Tyton Joint | Approx. Radius in Ft. of Curve Produced by Succession of Joints. |
|--------------|-------------------------------------|-------------|--|
| 4" | 5 ⁰ | 19 | 205 |
| 6" | 5 ⁰ | 19 | 205 |
| 8" | 5 ⁰ | 19 | 205 |
| 10" | 5 ⁰ | 19 | 205 |
| 12" | 5 ⁰ | 19 | 205 |
| 14" | 4 ⁰ | 15 | 260 |
| 16" | 4 ⁰ | 15 | 260 |
| 20" | 3 ⁰ | 11 | 345 |
| 24" | 3 ⁰ | 11 | 345 |

*Maximum permissible deflection for 18' length; maximum permissible deflections for other lengths shall be in proportion of such lengths to 18'.

e. Temporary Plugs

At all times when pipe laying is not actually in progress, the open ends of pipe shall be closed by temporary watertight plugs or by other approved means. If water is in the trench when work is resumed, the plug shall not be removed until all danger of water entering the pipe has passed. Pipelines shall not be used as conduits for trench drainage during construction.

§ 3. Valves and Appurtenances

a. General

(1) Summary

The work under this Section includes the furnishing, installation and testing of all valves, tapping sleeves, and appurtenances as indicated on the plans or as may be required by the Owner.

(2) Quality Assurance

(3) Manufacturer's Recommendations:

The Contractor shall submit for approval six (6) copies of the manufacturer's printed recommendations for the storage, protection, handling and installation of the valves, tapping sleeves and appurtenances, which shall be strictly adhered to by the Contractor.

(4) Certificate of Compliance:

Each shipment of valves, tapping sleeves and appurtenances shall be accompanied with the manufacturer's notarized certificate certifying conformance with the requirements of the Specifications.

(5) Marking

Marking of all tapping sleeves shall conform to the requirements of AWWA 110 latest revision, marking of all valves shall conform to the requirements of AWWA 509 latest revision, and marking of all shall conform to the requirements of AWWA 502, latest revision.

(6) Manufacturer's Representative

The Contractor shall furnish at no additional expense to the Owner, the services of the manufacturer's representative for instruction of the contractor personnel who will be installing the tapping sleeves and valves. The instruction shall include proper handling, installation and jointing, and other construction areas and shall be for such lengths of time required to fully familiarize the Contractor's personnel with proper techniques. This information shall be bound and indexed for each type of unit as herein specified.

(7) References

Standard Specifications when referenced to in this Section shall mean the "Standard Specifications for Roads, Bridges, and Incidental Construction" of the Connecticut Department of Transportation, 1995 Edition.

b. Products

(1) Tapping Sleeves and Tapping Valves

(2) All material shall be made in the United States of America.

(3) All tapping sleeves shall comply in all respects to AWWA Standard C-110 and the following design standards:

(i) Tapping sleeve shall be installed at the location of the existing water main as shown on the plans and details.

(ii) The tapping sleeve shall be a mechanical type joint to provide pressure - tight installation and be suitable for use with the existing pressurized pipe material. Tapping sleeves shall be manufactured by Mueller, Model H-615. Outlet flange shall be Class 125C, ANSI B16.1.

(iii) Mechanical joint tapping sleeves shall have totally confined end gaskets and be designed to withstand a minimum of 200 p.s.i. working pressure.

- (iv) Tapping valves shall comply with Section 2-3 - Gate Valves except one end shall be flanged and the other mechanical.
 - (v) Tapping Valves shall be manufactured by Mueller, Model T2360, and shall be resilient wedge type, open left for mechanical joints.
 - (vi) Tapping valves shall be provided with an oversized opening to allow the use of full size cutters.
- (4) Buried Gate Valves
- (5) Resilient seated gate valves shall meet AWWA C-509 and be UL listed and FM approved. This valve shall be iron-body, bronze mounted, non-rising stem, 4 inch through 12 inch in diameter as shown on plans. All valves to open left. All valves to be mechanical joint.
- (6) Sizes 4 inch through 12 inch shall be suitable for 200-psig maximum working pressure and 400-psig-test pressure. Size 16 inch shall be suitable for 200-psig maximum working pressure.
- (7) Valve shall have a minimum of two O-ring stem seals.
- (8) Bonnet and gland bolts and nuts shall be stainless steel for corrosion resistance.
- (9) The interior and exterior of valves shall be fully epoxy coated 8 mils thick.
 - (a) Gate valves shall be as manufactured by Mueller, Model A2360 or approved equal.
- (10) Butterfly Valves
- (11) Buried butterfly valves shall be iron-body, ductile iron valve discs with rubber seats offset from the valves shaft in order to provide complete 360° seating having mechanical, flanged or bell-and-spigot ends necessary to match connecting pipe. The valves shall be suitable for 150 psi working pressure for 12" to 24" sizes and shall conform to the AWWA Standard for Rubber-Seated Butterfly Valves, Designations C504-94 insofar as applicable. Valves shall be made by the Mueller Company, Decatur, Illinois or approved equal.
- (12) They shall, in addition, meet the following requirements:
- (13) Valve body seating surface shall be Stainless Steel, ASTM A276, Type 304. The mating seat shall be natural rubber bonded to an 18-8 stainless steel seat retaining ring and shall be mounted on the disc. The rubber seat mounted on the disc shall be field adjustable and field replaceable.
- (14) Valve shafts shall be Stainless Steel, ASTM A276, Type 304 of the stub shaft design. The shafts and disc shall be connected by means of an O-ring sealed taper pin, held in place by self-locking nuts. The disc shall be held in the center of the valve by factory set thrust collars. Shaft seals shall be of the O-ring type in removable bronze cartridge.
- (15) Operators shall be of the traveling-nut type with readily adjustable end stops without disassembly of operator or use of machine tools. Operators shall be field replaceable.
- (16) All valves furnished shall open left.
- (17) Above Ground Blow-Off Valve
- (18) Blow-Off valves shall be non-freezing, self-draining type.
- (19) Blow-Off valves shall be furnished with a 4" MJ inlet, a non-turning operating rod, and shall open to the left.
- (20) All of the working parts shall be of bronze-to-bronze design, and be serviceable from above ground with no digging.
- (21) Units shall operate with a standard 2" gate valve wrench.
- (22) When open, valve shall be 100% unobstructed and drain hole shall be covered.

- (23) The outlet shall be 4" FIP with plug and extend a minimum of 12" above the ground.
- (24) The Blow-Off valve shall be a Model # 7500 manufactured by Kupferle Foundry Co., St Louis, MO, or an approved equal.
- (25) Straight and Transition Pipe Couplings
- (26) The center sleeve and end rings of couplings shall be made of ductile iron, meeting or exceeding ASTM A536. The coupling shall accommodate the entire O.D. range in the specified size by use of interchangeable color-coded end rings and gaskets.
- (27) The coupling shall be made of virgin rubber compound for water use. The SBR shall meet or exceed ASTM D2000-3-BA715. The gasket shall have raised lettering and sizing and state the proper color code for the appropriate end ring.
- (28) The coupling shall be equipped with stainless steel bolts, washers, and nuts, and conform to the latest edition of AWWA C111.
- (29) Straight couplings shall be as manufactured by Ford Model FC1-SH, Smith Blair Model 441, Romac Model 501, Cascade Waterworks Model CDC, or approved equal.
- (30) Transition/Repair couplings shall be as manufactured by Smith Blair Model 441, or approved equal.
- (31) Repair Clamp shall be as manufactured by Smith Blair Model 226 or 227 or approved equal.
- (32) Straight connections between two ductile iron pipe sections shall be made by ductile iron solid sleeves.
- (33) Valve Boxes and Covers
- (34) Cast iron valve boxes shall be two-piece adjustable style, slip type, as manufactured by Tyler, Bibby, or equal. Barrel inside diameter shall be 4½ inches with 26-inch top section and 48 inch bottom section lengths adjusted to finish grade.
- (35) Covers shall be cast iron, 5¼ inch, with the word "WATER" and a direction to open arrow imprinted thereon. The boxes and covers shall be compatible with the valves to which they attach.
- (36) An approved operating key shall be provided to the Owner.
- (37) Joint Restraint
- (38) Restraining devices shall be used where indicated, directed or as required. Joint restraint shall be concrete thrust block and mechanical joint restraint. Mechanical joint restraint shall be manufactured by EBAA Iron, of type Mega-Lug pattern, Model 1100 for mechanical joints.
 - (i) Restraining devices shall be utilized on all mains under the following conditions:
 - (ii) Pipeline direction changes (tees, bends)
 - (iii) Dead end lines (caps, plugs, valves)
 - (iv) Transition pieces (reducers)
 - (v) Thrust restraint shall be provided via restrained joint, ductile iron pipe meeting AWWA C151/A21.512 and AWWA C111/A21.11. Restrained joint pipe lengths (restrained length) shall be sufficient to restrain thrust imparted by 1½ times the anticipated working pressure but not less than 200 psi.
 - (vi) Thrust restraint utilizing tie-rods shall be utilized on vertical bends from MJ Bend to MJ Bend or as directed by the Owner or specifically indicated. Tie-rod diameters shall be 2 times the diameter required to restrain the main. All rods shall be protected from corrosion with two coats of bituminous paint or epoxy.

- (39) Indicator Post
- (40) Indicator post and valve shall be Underwriter's Laboratories, Inc. (UL) listed and Factory Mutual Research (FM) approved.
- (41) Indicator post shall be equipped with an angle-type operating wrench, which shall be locked to the post thus preventing unauthorized valve operation.
- (42) Indicator post and valve shall be the two-piece type manufactured by US Pipe or approved equal.
- (43) Indicator posts shall be supplied on all buried gate valves for full operation of opening and closing of valves.
- (44) Targets shall be set in the indicator posts to indicate "open" and "shut" position and shall be in full view.
- (45) Provide stem and coupling of adequate length for valve operation, along with adjustable setting box and base with a flange having sufficient bearing area to prevent under settlement. The lower base shall be designed to enclose the operating nut and stuffing box of the valve and fit over the valve bonnet.
- (46) Fire Hydrants
 - All fire hydrants shall comply in all respects to AWWA C-502 and the following design standards:
- (47) Fire hydrants shall be of the compression type, closing with the line pressure.
- (48) The depths of bury shall be 5 feet minimum to top flange of hydrant boot. Hydrant extensions, which may be required, shall be manufactured by the same manufacturer of the hydrants being installed.
- (49) Hydrant shall be furnished with a sealed reservoir located in the bonnet so that all threaded and bearing surfaces are lubricated each time the hydrant is operated.
- (50) Hydrant shall be equipped with "O" ring packing. Each nozzle cap shall be provided with a Buna-N rubble washer.
- (51) A bronze or rustproof steel nut and check nut shall be provided to hold the main hydrant valve on its stem.
- (52) Hydrant shall be equipped with two 2-1/2 inch hose nozzles, and one 4-1/2 inch steamer nozzle; three way, National Standard Threads with 1-1/2 inch pentagonal nuts.
- (53) Each hydrant shall be able to deliver 500 gallons per minute through its two 2-1/2 inch hose nozzles when opened together with a loss of not more than 2 psi through hydrant.
- (54) Hydrant shall have at least two (2) bronze or copper lined drain outlets. The shoe of the hydrant shall be 6 inch mechanical joint D-150, suitable for use either with centrifugally cast pipe or Class D Pit Cast Pipe. Lugs will be case on either side shoe, securely anchoring the hydrant. Hydrants shall be furnished with a breakable feature that will break cleanly upon impact. This shall consist of a 2-part breakable safety flange with a breakable stem coupling. Hydrant nozzles must be able to be rotated to any position without disassembly of ground-line flange.
- (55) Hydrants shall open to the LEFT and shall have a direction-to open arrow with the work "OPEN" imprinted on the hydrant.
- (56) Hydrants shall be post type.
- (57) Hydrants shall be so arranged that the direction of outlets may be turned 90 degrees without interference with the drip mechanism or obstructing the discharge from any outlet.

- (58) Hydrants shall be furnished with caps, double galvanized steel hose cap chain, galvanized steel pumper hose cap chain, a galvanized steel chain holder and any other hooks and/or appurtenances required for proper use.
- (59) All hydrants shall be equipped with a 6" gate valve in accordance with Section 2-3 above, and be fully restrained as shown on the drawings. Restrained joints shall be by Megalug Thrust Restraint Wedge manufactured and sold by EBAA Iron Sales Inc.
- (60) Hydrants shall be Mueller No. A423 5-1/4" valve opening Centorion 250 which opens left.
- (61) Hydrant shall be sand blasted to SSPC/SP-6, primed with phenolic urethane compatible coating 5 mils thick, and finish coated red. The boot coating shall be fuse-bonded epoxy or thermal set epoxy for interior and exterior - holiday free with minimum 8 mils thickness meeting or exceeding AWWA C550.
- (62) For every 4 hydrants installed the following shall be provided to the Owner (If less than 4 hydrants are installed, at least one completed set of the following shall be provided):
 - (i) One (1)-traffic repair kit,
 - (ii) One (1) full set of "O" - rings and gaskets,
 - (iii) One (1) set of drain valve facings,
 - (iv) One (1) hydrant valve removal wrench, and
 - (v) One (1) hydrant-operating wrench.

All parts shall be properly labeled and housed in a carton with part numbers clearly indicated.

c. Installation

- (1) General
 - (a) All tapping sleeves, valves and accessories shall be carefully inspected by the contractor for defects before installation and all defective, unsound or damaged materials shall be rejected.
 - (b) The Owner's Representative will make such additional inspections as he deems necessary and the Contractor shall furnish all necessary assistance for such inspection.
 - (c) Proper implements, tools and facilities satisfactory to the Owner's Representative shall be provided by the Contractor for the proper and satisfactory execution of the work.
 - (d) Tapping sleeves, valves and appurtenances shall be new and unused and shall be of the types and materials specified as indicated or as directed.
 - (e) The interior of tapping sleeves and valves shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operation.
 - (f) Tapping sleeves and valves shall be constructed in dry trenches and shall not be laid when the conditions of the trench or the weather is unsuitable for such work.
 - (g) Tapping sleeves, valves and couplings shall be laid to the line and grade in such a manner as to form a close concentric joint with the adjoining pipe and to prevent sudden offsets of the flow line.
 - (h) At times when work is not in progress, open ends of tapping sleeves and valves shall be securely closed so that no trench water, earth or other substances will enter.

- (i) Any tapping sleeves or valves that have been disturbed after laying shall be taken up and relayed.
 - (j) All materials found to be defective during the progress of the work will be rejected by the Owner's Representative and the Contractor shall promptly remove such defective material from the site of the work and replace with new material at no additional expense to the Owner.
 - (k) The Contractor shall be responsible for the safe storage and proper handling of all materials.
 - (l) No shims or mounds of earth shall be used to raise the equipment to grade.
 - (m) No tapping sleeve, valve or appurtenance shall be covered until the joints have been inspected.
 - (n) Installed materials shall be protected at all times during construction against flotation; they shall be thoroughly secured, properly supported and bedded to prevent settlement or disturbance.
 - (o) Tapping sleeves shall be installed where indicated or as directed by the Owner's Representative and shall be installed according to the manufacturer's recommended procedures.
 - (p) Valves and joint restraints shall be installed where indicated or as directed by the Owner's Representative and shall be installed according to the manufacturer's recommended procedures.
 - (q) Setting Valves and Valve Boxes
 - (r) Valves shall be set in the pipelines as directed. Blocking or supports of a permanent nature shall be placed under each valve to ensure against settlement.
 - (s) Each valve shall be tightly closed before being placed in the line and shall remain so until the joints on each side are completely tightened.
 - (t) Valve boxes shall be set for all valves. They shall be carefully fitted together and to the valve and securely held during backfilling. They shall be centered over the valve-operating nut. The bedding material around them shall be thoroughly tamped in place and the box cover set to the finished grade.
- (2) Testing
- (a) All materials shall be tested for tightness as soon after installation as possible in accordance with Section 02675.
 - (b) All materials found to be defective during testing shall be replaced with new and approved material at no additional expense to the Owner.
 - (c) Test Report and Certificates
 - (d) In addition to other requirements specified herein, the Contractor shall furnish to the Owner Representative notarized test reports and methods of test by an approved independent testing laboratory to show compliance of all materials furnished under this section of the Specifications with all the requirements herein.
 - (e) Each shipment of tapping sleeves, valves, shall be accompanied by the manufacturer's notarized certificate of conformance certifying that materials to be furnished under these items meet all requirements herein.
 - (f) All testing of materials furnished under this section of the Specifications shall be provided by the Contractor at no additional expense to the Owner.
 - (g) Corporation Stops and Fittings

(3) Corporation Stops

- (a) The inlet thread shall be AWWA taper “cc” threads and conform to AWWA 800 latest revision. The outlet thread shall conform to CTS and accessories required for a compression type connection suitable for use with polyethylene service tubing as specified herein. Design to withstand a minimum of 200-psi pressure.
- (b) Corporation stops shall be Mueller Style No. H-15008. For the purposes of system standardization, no substitution will be allowed.
- (c) Fittings - Brass:
Compression Fitting: Materials shall meet standard AWWA C-800 for brass fittings. The fittings and adapters shall be furnished with CTS Type for connections to polyethylene service tubing. Fitting design to withstand a minimum of 200-psi pressure and shall be as manufactured by Mueller. For the purposes of system standardization, no substitution will be allowed. The fittings shall Mueller H-15403

(4) Curb Stops

Curb stops to meet the following requirements:

- (a) Valve to open left.
- (b) T-head which aligns with the port that provides a quick identification of valve position.
- (c) Valves shall be of bronze, meeting AWWA C-800.
- (d) Design of valve shall be for a minimum hydrostatic test pressure of 200-psi pressure.
- (e) Connections shall be CTS Type connections couplings for suitable use with polyethylene service pipe (tubing) material being installed and existing polyethylene tubing services.
- (f) Curb stop shall be non-draining type.
- (g) Curb stops shall be Mueller ball type B25209. For the purposes of system standardization, no substitution will be allowed.

(5) Curb Boxes

- (a) Curb boxes shall be 2½-inch 94E Buffalo box slide type, and manufactured by Tyler, Bibby, or approved equivalent. The construction shall provide adjustment for varying grade levels and provide allowance for settlement or frost heave. Extension range shall be 40” to 60”. The boxes shall completely cover the curb stop. "Water" shall be clearly cast on the cover and have a brass pentagonal bolt.
- (b) The box and cover shall be coated inside and out with a tar base enamel.

(6) Water Service Piping (Tubing)

EndoPure POLYETHYLENE TUBING

- (i) Water service piping shall be EndoPure Polyethylene as manufactured by Endot Industries, Inc. or approved equal. EndoPure Polyethylene tubing shall be copper tube size (CTS) and have a working pressure of 200 psi.
- (ii) EndoPure Polyethylene shall meet the applicable standards of ASTM D1248, ASTM D3350, ASTM D2239, and NSF-14 and shall meet the minimum values in the following table:

| PHYSICAL PROPERTY REQUIREMENTS | | |
|--|--------------------|--------------------|
| EndoPure Polyethylene | | |
| Property | Test Method | Requirement |
| Cell Classification | ASTM D3350 | 345444A |
| Density | ASTM D1505 | 0.944 g/cc |
| Melt Index | ASTM D1238 | >15.0 g/10 min |
| Tensile Strength | ASTM D638 | >3,300 psi |
| Elongation | ASTM D638 | >800% |
| Hydrostatic Design Basis | ASTM D2837 | 1,600 psi @23°C |
| Flexural Modulus | ASTM D790 | 12,000 psi |
| Brittleness Temperature | ASTM D746 | < -180 °F |
| Environmental Stress Crack Resistance | ASTM D1693 | >5,000 hours |

(7) Installation of Water Service Lines

- (a) Water service lines or branches shall be installed in accordance with the detail attached to this specification.
- (b) For service branch installations, it is anticipated that the Contractor will use the conventional open-trench method, or he may choose any method of installing the water service piping, as approved by the Owner's Representative.
- (c) Corporation stops shall be directly tapped into the water main and the polyethylene service piping (tubing) of the size specified shall run from the corporation stop to the curb stop.
- (d) Corporation stops shall be installed as near the horizontal diameter as possible. The length of travel of the tap should be so established that when the stop is inserted and tightened with a 14-inch wrench, not more than one to three threads will be exposed on the outside. When a wet tapping machine is used, the corporation cock shall be inserted with the machine while it is still in place. Stops shall be tightened only sufficiently to give watertightness and care must be constantly exercised not to overtighten them.
- (e) The Contractor shall install straight couplings to existing water mains of the sizes required in the locations designated by the Owner's Representative in the field. The Contractor shall utilize the manufacturer's recommended installation procedures while performing the work. Care shall be taken to ensure a watertight connection.
- (f) Curb stops will, in most cases, be installed to beyond the roadway alignment and beyond the sidewalk on sides of the road that have a sidewalk, as shown on the drawing details. The Contractor shall install the curb stops and boxes in a workmanlike manner as described herein and as directed by the Owner's Representative and shall place clean compacted sand around and below the curb stop.
- (g) Curb stops shall be furnished with a tailpiece, and end plug, which will be removed during future connection to the service stop.
- (h) The boxes shall be set in a true vertical position and if they are within the limits of the roadway or within limits where the plowing of snow will take place in the winter, the tops of the boxes shall be set about 1/2 inch below the top of the finished

grade. In locations where these boxes are not likely to be disturbed, the tops shall be set flush with the adjoining ground.

- (i) Care shall be exercised in the placing and laying of polyethylene service tubing to be sure that the pipe (tubing) does not have kinks or sharp bends and to assure against it being in contact with sharp stones or ledge which would cause damage to the pipe. At least 12-inches of clean compacted sand shall be placed adjacent to, below and above the water service tubing and no stone shall be placed over the pipe until the depth of backfill above the latter is in excess of 1-ft.
- (j) All new water services shall have a minimum cover of four and one-half feet, as measured from finished grade; throughout the installation from the water main to the curb stop.

§ 4. Backflow Protection

- (1) MPTN Product Standard
Reduced Pressure Backflow Preventers (RPZ) shall be installed at all water service entry points to Tribal Government, Commercial, and Enterprise facilities. MPTN Utilities product standard is Watts RPZ model 909.
- (2) Installation Requirements
 - (a) The installation for the potable water service shall consist of a primary and a secondary backflow device with isolation valves for each of the devices. The backflow devices shall be tested by certified backflow tester utilizing test equipment with a current test certification prior to activation of the water service. The fire suppression service shall utilize a double check valve assembly for fire services that do not utilize chemical additives. The model of the backflow prevention device shall be subject to the approval of MPTN Fire Dept. and Factory Mutual. If chemicals are utilized in the fire suppression system a RPZ backflow device shall be installed.
 - (b) RPZ Backflow Prevention Devices shall be also installed at the water service entrance points of vendor outlets and restaurants that utilize water for public use and consumption to include but not limited to food service, bars and nightclubs. All other backflow devices shall be required and installed as per the current adopted International Plumbing Code. All point of water service entry backflow devices shall be installed in a well-lit area no more than 6 feet from ground level and easily accessible without need of a ladder or confined space entry. See schematic drawing detail on Page 9 of Appendix I for typical installation.

§ 5. Water Meters

- (1) MPTN Product Standard
MPTN Utilities product standard is Hersey. Meters shall be equipped with a translator pulse capability, measure in cubic feet, and capable of measuring water flow (+) or (-) 1% accuracy during high flow and low flow conditions. The design engineer and contractor shall submit the product data of the proposed meter along with high and low flow conditions for review and approval by the Utilities Department.
- (2) Installation Requirements
 - (a) All Commercial, Tribal Government, and Enterprise meter installations shall include bypass piping and isolation valves to allow meter removal without interruption to the water service. Meters installed inside the customer's building shall be located as

near as possible to the point where the service pipe enters the building and at a point reasonably secure from injury and readily accessible for reading and testing.

- (b) Meters shall be installed in a easily accessible area no higher than 5 feet above floor level and located as near as possible to the water service entrance. If the meter is installed in a locked closet a remote reader shall be installed so the meter can be easily read outside of the closet or in an accessible hallway. Under no conditions shall a meter be installed in the overhead ceiling. Installation of a meter in a meter pit outside of the building will not be allowable with prior approval from the MPTN Utilities Dept. See schematic drawing detail Page 9 of Appendix I for typical installation.

§ 6. Pressure and Leakage Tests

The pipelines shall be given combined pressure and leakage tests in sections of approved length in accordance with the AWWA Standard Specification (C600-93). The pressure test shall be conducted at 200 PSI for a period of 2 hours and shall be performed by a certified third party testing laboratory, the contractor shall be responsible for all costs of third party to perform pressure testing, chlorination, flushing, and bacterial sampling.

- (1) The scheduling of pressure and leakage test shall be as directed by the MPTN Utilities Department.
- (2) Subject to approval, and provided that the tests are made within a reasonable time considering the progress of the project as a whole and the need to put the section into service, the Contractor may make the tests when he desires.
- (3) The Contractor shall furnish and install suitable temporary testing plugs or caps for the pipeline; all necessary pumps, pipe connections and other similar equipment; and all labor required, all without additional compensation. The contractor shall furnish a water meter and a pressure gauge which the Contractor shall install in such a manner that all water entering the section under test will be measured and the pressure in the section indicated.
- (4) Pipelines in excavation or encased in the concrete shall be tested prior to the backfilling of the excavation or placing of the concrete.
- (5) Unless it has already been done, the section of pipe to be tested shall be filled with water of approved quality, and all air shall be expelled from the pipe. If hydrants or blow-offs are not available at high points for releasing air, the Contractor shall provide all blow offs necessary, make the necessary excavations and do the necessary backfilling and make the necessary taps at such points and shall plug said holes after completion of the test.
- (6) The section under test shall be maintained full of water for a period of 24 hours prior to the combined pressure and leakage test being applied.
- (7) The pressure and leakage test shall consist of first raising the water pressure (based on the elevation of the lowest point of the section under test and corrected to the gauge location) to a pressure in pounds per square inch numerically equal to the pressure rating of the pipe. While maintaining this pressure, the Contractor shall make a leakage test by metering the flow of water into the pipe. If the average leakage during a two-hour period exceeds a rate of 10 gallons per inch of diameter per 24 hours per mile of pipeline, the section shall be considered as having failed the test. All joints within chambers and all flanged joints shall have no visible leakage. No caulking of compound joints with lead or other foreign material will be allowed. Compound joints which drip slightly will, in general, be satisfactory, but no joints from which water continues to run or squirt in an active manner will be accepted.

- (8) If the section shall fail to pass the pressure test or the leakage test, or both, the Contractor shall do everything necessary to locate, uncover and repair and replace the defective pipe, fitting or joint, all at his own expense and without extension of time for completion of the work. Additional tests and repairs shall be made until the section passes the specified tests.

§ 7. Disinfecting and Flushing

- (1) After a section of the main has been tested and found acceptable, it shall be flushed thoroughly by MPTN Utilities and the Contractor. Upon completion of flushing operations, the approved 3rd Party testing agency hired by the Contractor shall disinfect the main with a solution consisting of 50 ppm of chlorine (which shall be retained in the main for at least 24 hours) in accordance with the AWWA Standard Specifications for Disinfecting Water Mains C651-92, Sections 1 to 9, inclusive.
- (2) Before the bypass pipes and service connections are put into use, the approved 3rd Party testing agency hired by Contractor shall disinfect the piping with a solution consisting of 50 ppm of chlorine, which shall be retained in the pipe for at least 8 hours. Disinfection shall be in accordance with the above mentioned AWWA Specifications insofar as applicable.
- (3) Following disinfection, all treated water shall be de-chlorinated and thoroughly flushed from the main to a drainage area approved by the Office of Natural Resources.
- (4) For all work involved, the Contractor shall furnish all equipment, material, and labor required for the testing, flushing, and chlorination. The Contractor shall also furnish means for disposal of the water used in disinfecting and flushing the main. The water shall be wasted in such a manner as to eliminate possibility of damage to roadways, adjacent property and contamination of water supply.
- (5) After disinfection and flushing but prior to placing the water main in active service a water sample representative of the new construction shall be collected in accordance with the most current version of AWWA Standard C651 by a certified testing laboratory. Samples shall be analyzed, at a minimum, for total coliform bacteria, total and free chlorine residual, and physical parameters. Test results, with the exception of chlorine, shall meet the water quality standards shown in Table 1 prior to placing the water main into service.

TABLE 1 Water Quality Standards

| Parameter | Standard |
|-------------------------|---|
| Total coliform Bacteria | 0 or absent (must use membrane filter (MF) technique unless HPC testing is conducted in which case the presence -absence technique may be substituted for the MF technique) |
| Color | < 15 CU |
| Turbidity | < 5 NTU |
| Odor | < 2 |
| pH | RANGE 6.4 - 10 |

CHAPTER 3. SANITARY SEWER SYSTEM

SubChapter 3.1. Technical Specifications and Requirements

§ 1. Manholes

a. General

The Contractor shall furnish all materials and shall construct all the manholes required including the frames, covers, and steps.

b. Description

- (1) Manholes shall conform in shape, size, dimensions, materials, and other respects to the details indicated on the detail drawing specifications (see Appendix I), or as approved by MPTN Utilities.
- (2) Manholes may have cast in place concrete bases and may be precast units. Invert channels may be formed in the concrete of the base or may be formed of brick and mortar upon the base.
- (3) Manhole barrels and domes shall be precast concrete sections. The top 8 in. shall be built of brick or concrete grading rings to permit adjustment of the frame to meet the street surface. The inverts shall conform accurately to the size of the adjoining pipes. Side inverts shall be curved and main inverts (where direction changes) shall be laid out in smooth curves of the longest possible radius which is tangent to the centerlines of adjoining sewers.

c. Precast Concrete Selections

- (1) Precast concrete sections shall conform to the A.S.T.M. Standard Specifications for Precast Reinforced Concrete Manhole Sections, Designation C478-85a, with the following exceptions and additional requirements:
- (2) The barrel shall not be less than 5 in. thick.
- (3) Type II cement shall be used except as otherwise approved.
- (4) Joints between sections shall be made with round (O-ring) rubber gaskets with a shiftable groove on the spigot ends and shall conform to the A.S.T.M. Standard Specifications for Joints for Circular Concrete sewer and Culvert Pipe, Using Rubber Gaskets, Designation C443-85a.
- (5) Manhole sections shall contain manhole steps accurately positioned and embedded in the concrete when the section is cast.
- (6) Sections shall be cured by subjecting them to thoroughly saturated steam at a temperature between 100 and 130 deg. F. for a period of not less than 12 hours or, when necessary, for such additional time as may be needed to enable the section to meet the strength requirements.
- (7) The joint for the pipe at the base section shall consist of a Lock Joint flexible sleeve (imbedded in the wall of the base section) and a stainless steel strap to provide a water tight seal and allow a flexible joint. (Or Approved Equal)
- (8) No more than two lift holes may be cast or drilled in each section.
- (9) The date of the manufacture and the name or trademark of the manufacturer shall be clearly marked on the inside of the barrel.
- (10) Acceptance of the sections will be on the basis of material tests and inspections of the completed product.
- (11) Cones shall be precast sections of the eccentric type.

- (12) If precast concrete sections are used, the tops of the bases shall be suitably shaped by means of accurate bell-ring forms to receive the barrel sections.
- d. Setting Precast Manhole Selections
 - (1) Precast-reinforced concrete manhole sections shall be set so as to be vertical and with sections and steps in true alignment.
 - (2) Rubber gaskets shall be installed in all joints in accordance with the manufacturer's recommendations.
 - (3) All holes in the sections used for their handling shall be thoroughly plugged with rubber plugs made specifically for this purpose or with mortar. The mortar shall be one part cement to 2 parts sand, mixed slightly damp to the touch (just short of "balling"), hammered into the holes until it is dense and an excess of past appears on the surface, and then finished smooth and flush with the adjoining surfaces.
 - e. Brick
 - (1) The brick shall be sound, hard, and uniformly burned brick, regular and uniform in shape and size, of compact texture, and satisfactory to the Engineer. Brick shall comply with the A.S.T.M. Standard Specification for Sewer Brick and Manhole Brick (made from Clay or Shale) Designation C32-73 (Reapproved 1984) for Grade SS, hard brick, except that the mean of five tests for absorption shall not exceed eight percent by weight.
 - (2) Rejected brick shall be immediately removed from the work.
 - f. Mortar for Brickwork
 - (1) The mortar shall be composed of portland cement, hydrated lime, and sand, in which the volume of sand shall not exceed three times the sum of the volumes of cement and lime. The proportions of cement and lime shall be as directed and may vary from 1: ¼ for dense, hard-burned brick to 1:¾ for softer brick. In general, mortar for Grade SS brick shall be mixed in the proportions of 1: ½:4-1/2.
 - (2) Cement shall be Type II portland cement as specified for concrete masonry.
 - g. Laying Brickwork

Only clean bricks shall be used in brickwork for manholes. The brick shall be moistened by suitable means, as directed, until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid. Each brick shall be laid in a full bed and joint of mortar without requiring subsequent grouting, flushing, or filling, and shall be thoroughly bonded as directed.
 - h. Coating

The exterior surfaces of all manholes shall be given two coats of bituminous waterproofing material. The material shall be Minwax Fibrous Coat made by Minwax Co., New York, N.Y.; Tremco 121 Foundation Coating made by Tremco Mfg. Co., Cleveland, Ohio; Inertol No. 7 made by the Inertol Co., Inc., Newark, N.J.; or approved equal product. The waterproofing material shall be applied by brush or spray and in accordance with the instructions of the manufacturer. Time shall be allowed between coats to permit sufficient drying so that the application of the second coat has no effect on the first coat.
 - i. Manhole Frames and Covers
 - (1) The Contractor shall furnish all cast-iron manhole frames and covers.
 - (2) The cast-iron frames and covers shall be Pattern No. 1009 manufactured by the Campbell Foundry Co., Harrison, N.J., or approved equal product.

- (3) The frames and covers shall be set by the Contractor to conform accurately to the grade of the finished pavement, or existing ground surface.
 - (4) The castings shall be of good quality, strong, tough, even-grained cast iron, smooth, free from scale, lumps, blisters, sandholes, and defects of every nature which would render them unfit for the service for which they are intended. Contact surfaces of covers and frame seats shall be machined to prevent rocking of covers. (4-5/8" vent holes min).
 - (5) All castings shall be thoroughly cleaned and subject to a careful hammer inspection.
 - (6) Castings shall be at least Class 30 conforming to the A.S.T.M. Standard Specification for Gray Iron Castings, Designation A48-83.
 - (7) Before being shipped from the foundry, castings shall be given one coat of coal-tar-pitch varnish, applied in a satisfactory manner so as to make a smooth coating, tough, tenacious, and not brittle or with any tendency to scale off.
- j. Setting Manhole Frames and Covers
- (1) Manhole frames shall be set with the tops conforming accurately to the grade of the pavement or finished ground surface or as indicated on the drawings or directed. Frames shall be set concentric with the top of the masonry and in a full bed of mortar so that the space between the top of the manhole masonry and the bottom flange of the frame shall be completely filled and made watertight. A thick ring of mortar extending to the outer edge of the masonry shall be placed around and on top of the bottom flange. The mortar shall be smoothly finished and have a slight slope to shed water away from the frame.
 - (2) Manhole covers shall be left in place in the frames on completion of other work at the manholes.
- k. Stubs in Manholes
- Stubs placed as specified and indicated on the drawings shall extend into the manhole with sufficient clearance to allow a standard joint to be made.
- l. Manhole Steps
- Unless otherwise indicated, manhole steps shall be of aluminum. Aluminum manhole steps for precast concrete sections shall be Stock No. 12653B made by Aluminum Company of America and Allegheny Foundry Co., or Stock No. F-14-2B made by New Jersey Aluminum Co., or an approved equal product. Before the steps are built into the masonry and after thorough cleaning, those parts of aluminum steps which will be embedded shall be given a protective coating of an approved, heavy-bodied, bituminous material. The cleaning shall be done by suitable means with suitable cleaning agents to ensure that the surfaces to be coated are free from all foreign matter such as dirt, oil, and grease. The steps shall be thoroughly rinsed and dried before the coating is applied and the coating shall have become thoroughly dry before the steps are built into the masonry.
- m. Leakage Testing for Manholes
- (1) After completion of manhole construction, wall sealing, or rehabilitation, but prior to backfilling, test manholes for water tightness using hydrostatic or vacuum testing procedures.

- (2) Plug influent and effluent lines, including service lines, with suitably-sized pneumatic or mechanical plugs.
 - (a) Ensure plugs are properly rated for pressures required for test; follow manufacturer's safety and installation recommendations.
 - (b) Place plugs minimum of 6 inches outside of manhole walls. Brace inverts to backfilled.
- (3) Vacuum testing:
 - (a) Install vacuum tester head assembly at top access point of manhole and adjust for proper seal on straight top section of manhole structure. Following manufacturer's instructions and safety precautions, inflate sealing element to recommended maximum inflation pressure; do not over-inflate.
 - (b) Evacuate manhole with vacuum pump to 10 inches mercury (Hg), disconnect pump, and monitor vacuum for time period specified in Table below, locate leaks, complete repairs necessary to seal manhole and repeat test procedure until satisfactory results are obtained.
- (4) Perform hydrostatic exfiltration testing as follows:
 - (a) Seal wastewater lines coming into manhole with internal pipe plug. Then fill manhole with water and maintain it full for at least one hour.
 - (b) The maximum leakage for hydrostatic testing shall be 0.025 gallons per foot diameter per foot of manhole depth per hour.
 - (c) If water loss exceeds amount tabulated above, locate leaks, complete repairs necessary to seal manhole and repeat test procedure until satisfactory results are obtained.

MINIMUM TESTING TIMES FOR SANITARY MANHOLES
LOW PRESSURE AIR TEST

| DEPTH IN FEET | TIME IN SECONDS BY PIPE DIAMETER | | |
|---------------|----------------------------------|-----|-----|
| | 48" | 60" | 72" |
| 4 | 10 | 13 | 16 |
| 8 | 20 | 26 | 32 |
| 12 | 30 | 39 | 48 |
| 16 | 40 | 52 | 64 |
| 20 | 50 | 65 | 80 |
| 24 | 60 | 78 | 96 |

§ 2. Polyvinyl Chloride Sanitary Gravity Sewer

a. General

The Contractor shall furnish, lay, joint and test the polyvinyl chloride sanitary sewer pipe, fittings and appurtenances.

b. Pipe and Fittings

- (1) Polyvinyl chloride sanitary sewer pipe shall be composed of clean, virgin class 12454-B PVC compounds according to ASTM Standard Specifications, Designation D3034-85A. All pipe and fittings shall be SDR 35 heavy wall pipe having bell and spigot with

rubber ring joints as manufactured by Johns-Manville, Certainteed, or approved equal product.

- (2) Joints for the pipe shall be of the integral bell type, consisting of an integral wall section with a solid cross section rubber ring securely set in place to prevent dislocation of the ring.
- (3) The pipe shall be furnished in standard 20 foot and 12.5 foot laying lengths.
- (4) Minimum pipe stiffness at 5% deflection shall be 46 PSI for all sizes when tested in accordance with ASTM D2412-77, Standard Test Method for External Loading Properties of Plastic Pipe by Parellel-Plate Loading.

c. Handling and Cutting Pipe

- (1) The Contractor's attention is directed to the fact that polyvinyl chloride pipe and fittings used with the pipe are comparatively brittle. Care shall be taken in handling and laying pipe and fittings to avoid damaging the pipe and fittings.
- (2) Any fittings showing a crack, and any fitting or pipe which has received a severe blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the work.
- (3) Polyvinyl chloride pipe shall be cut by means of a hand saw, "metal inserted" abrasive wheels, or by plastic tubing cutters with blades, not rollers, doing the cutting. All cut ends shall be examined for possible cracks caused by cutting. All burrs from both the inside and outside of the pipe must be removed with a knife, file or reamer prior to jointing the pipe.

d. Jointing Pipe and Fittings

- (1) Polyvinyl chloride sanitary sewer pipe and fittings shall be jointed in accordance with the latest detailed instructions of the manufacturer.
- (2) The Contractor shall furnish coupling pullers for jointing the pipe. Gasket-feeler gauges shall be available for use by the pipe layer and the Engineer for checking the position of the rubber gaskets in the completed joint.

e. Low Pressure Air Tests

- (1) Tests shall be conducted on all sewers as soon after installation and partial backfill has been completed in a manner and sequence as approved by the Engineer.
- (2) Equipment shall be Cherne Air-Loc Equipment as manufactured by Cherne Industrial, Inc., Edina, Minnesota, or an approved equal. Equipment shall meet the following minimum requirements:
- (3) Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be tested.
- (4) Pneumatic plugs shall be able to resist internal test pressures without requiring external bracing or blocking.
- (5) All air used shall pass through a single control panel.
- (6) Three individual hoses shall be used for the following connections:
 - (i) From control panel to pneumatic plugs for inflations.
 - (ii) From control panel to sealed line for introducing the low pressure air.
 - (iii) From sealed line to control panel for continually monitoring the air pressure rise in the sealed line.

- (7) Procedures
- (8) All pneumatic plugs shall be seal tested before being used in the actual test installation. One length of pipe shall be laid on the ground and sealed at both ends with the pneumatic plugs to be used in the testing. Air shall be introduced into the plugs to 25 psig. The sealed pipe shall be pressurized to 10 psig. The plugs shall hold against the 10 psig pressure without bracing and without movement of the plug.
- (9) After a manhole to manhole reach of pipe has been backfilled and cleaned, and the pneumatic plugs are checked by the above procedure, the plugs shall be placed in the line at each manhole and inflated to 25 psig. Low pressure air shall be introduced into the sealed line until the internal air pressure reaches 4 psig greater than the average back pressure of any groundwater that may be over the pipe. At least two minutes shall be allowed for the air pressure to stabilize.
- (10) After the stabilization period (3.5 psig minimum pressure in the pipe), the air hose from the control panel to the air supply shall be disconnected. The portion of the line being tested shall be termed "Acceptable" if the time required in minutes for the pressure to decrease from 3.5 to 2.5 psig (greater than the average back pressure of any groundwater that may be over the pipe) shall not be less than the time shown for the given diameters in the following table.
- (11) Test Criteria

| Pipe Diameter In Inches | Minutes (Minimum) |
|-------------------------|-------------------|
| 4 | 2.0 |
| 6 | 3.0 |
| 8 | 4.0 |
| 10 | 5.0 |
| 12 | 5.5 |
| 15 | 7.5 |
| 18 | 8.5 |
| 21 | 10.0 |
| 24 | 11.5 |

Groundwater pressure shall be determined by measuring the average height of the groundwater table in feet above the invert of the section of pipe being tested. The height in feet shall be divided by 2.3 to determine the pounds of pressure that shall be added to all test pressures. For example, if the average height of groundwater over the pipe invert is 11.5 feet, the pressure to be added would be 5 psig (11.5 divided by 2.3 = 5.0). Therefore, the starting pressure of 3.5 psig would be increased to 8.5 psig and the drop in pressure should fall to no less than 7.5 psig instead of 2.5 psig. The allowable drop of one pound and the time start would remain unchanged. All sections of pipe that fail to meet the criteria of the test shall be rejected and the Contractor shall determine the source of leakage and repair or replace defective work in a manner satisfactory to the City, and retest until the test criteria are satisfied.

§ 3. Polyvinyl Chloride Low Pressure Sewer Pipe**a. General**

The Contractor shall furnish, lay, joint and test the polyvinyl chloride low pressure sewer pipe, fittings and appurtenances.

b. Pipe and Fittings

- (1) Polyvinyl chloride low pressure sewer pipe and fittings shall be Schedule 40, solvent weld pressure pipe conforming to ASTM Standard Specifications, Designation D2241084 and D1784-81 and shall be of the sizes as indicated on the drawings. The pipe and fittings shall be as manufactured by Johns-Manville, Certaineed, or approved equal product.
- (2) Fittings for solvent weld pressure pipe shall have a pressure rating not less than that of the pipe and be fully compatible with the pipe supplied without alteration.
- (3) Joints for the pipe shall be solvent weld, polyvinyl chloride joints and shall be made in accordance with the manufacturer's recommendations or as directed by the Engineer.
- (4) The pipe shall be furnished in standard 20 foot laying lengths.
- (5) All fittings and bends a required shall be backed up with class B concrete thrust blocks as indicated on the drawings or as directed by the Engineer.

c. Handling and Cutting Pipe

- (1) The Contractor's attention is directed to the fact that polyvinyl chloride pipe and fittings used with the pipe are comparatively brittle. Care shall be taken in handling and laying pipe and fittings to avoid damaging the pipe and fittings.
- (2) Any fittings showing a crack, and any fitting or pipe which has received a severe blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the work.
- (3) Polyvinyl chloride pipe shall be cut by means of a hand saw, "metal-inserted" abrasive wheels, or by plastic tubing cutters with blades, not rollers, doing the cutting. All cut ends shall be examined for possible cracks caused by cutting. All burrs from both the inside and outside of the pipe must be removed with a knife, file or reamer prior to jointing the pipe.

d. Jointing Pipe and Fittings

Polyvinyl chloride low pressure sewer pipe and fittings shall be jointed using solvent weld, polyvinyl chloride joints in accordance with the latest detailed instructions of the manufacturer.

e. Installing Pipe and Fitting

- (1) No defective pipe or fittings shall be installed. Any piece discovered to be defective after having been laid shall be removed and replaced with a sound piece.
- (2) Each pipe and fitting shall be cleared of all debris, dirt, etc., before being installed and shall be kept clean until accepted in the completed work.
- (3) Each length of pipe shall be shoved home against the pipe previously laid and held securely in position. Joints shall not be "pulled" or "cramped" without approval of the Engineer.
- (4) Before any joint is made, the pipe shall be checked to assure that a close joint with the next adjoining pipe has been maintained and that the inverts are matched and conform to the required grade. The pipe shall not be driven down to the required grade by striking it.

- (5) Pipe or fittings shall not be left permanently supported on saddles or blocking, but shall be firmly supported by screened gravel or sand as indicated on the drawings.
- (6) The screened gravel or sand shall be thoroughly compacted under the pipe so as to obtain a substantial unyielding bed shaped as indicated on the drawings. After each pipe has been properly bedded, enough screened gravel or sand shall be placed between the pipe and the sides of the trench, and thoroughly compacted, to hold the pipe in correct alignment. Holes provided for jointing shall be filled and compacted and then screened gravel or sand shall be placed and compacted to complete the bedding as indicated on the drawings.
- (7) Adjacent to structure walls, the pipe shall be provided with a concrete cradle as indicated on the details. Class B Concrete shall be used, or if the Contractor prefers, Class A concrete for the structure base may be extended to the cradles.
- (8) The Contractor shall take all necessary precautions to prevent flotation of the pipe in the trench.
- (9) Hydrated lime shall be Type S conforming to the ASTM Standard Specifications for Hydrated Lime for Masonry Purposes, Designation C207-79 (Reapproved 1984).
- (10) The sand shall comply with the specifications for "Fine Aggregate" for concrete masonry except that all of the sand shall pass a No. 8 sieve.
- (11) Temporary Plugs
When pipe laying is not in progress, the open ends of the pipe shall be closed with temporary watertight plugs. If water is in the trench when work is resumed, the plug shall not be removed until all danger of water entering the pipe is eliminated.
- (12) Pipelines shall not be used as conductors for trench drainage during construction.
- (13) Leakage tests shall be conducted by maintaining the pipe under a pressure, as measured at the point of lowest elevation, of 50 pounds per square inch for at least 2 hours. Care should be taken to expel all air from the pipes when filling with water. The quantity of water measured to maintain the test pressure shall not exceed 0.009 gallons per inch of diameter per 24 hours per joint. If the leakage exceeds this rate, the Contractor must repair, replace or relay sections of pipe and repeat the tests until satisfactory to the Engineer.

§ 4. Curb Valves and Appurtenances

a. General

The Contractor shall furnish all curb valves and appurtenances as indicated on the drawings and as herein specified.

b. Curb Valves and Appurtenances

- (1) Curb valves shall be Mueller Oriseal Model H-10291 or be approved equal.
- (2) Cast iron valve box including lid and plug, footpiece and stationary rod shall be Mueller Model H-10386 or an approved equal. The work "sewer" shall be cast on the cover. The length of the valve box shall be as necessary to suit the ground elevation.

CHAPTER 4.

STANDARDS FOR GAS METER & GAS SERVICE INSTALLATIONS

§ 1. General

Following are requirements for the installation of gas meters for residential, commercial and industrial applications. Some requirements are specific to residential meters only and are identified as such. Every specific requirement may not be addressed in these standards, however MPTN Utilities retains the right to require changes in installation as required by code or other safety related conditions.

§ 2. Gas Meter Location

a. Residential gas meters may be only installed within 15 feet of either front outside or inside corners of the house unless otherwise approved by the Superintendent of Gas Distribution. This will assure a safe approach to the gas meter and eliminate most conflicts with fences, decks, patios, etc. (See Figure A in Appendix III, page 1:)

b. Any Potential Ignition Sources such as: electric meters, air conditioners, etc., may not be located within 3 feet in all directions of any regulator or relief vents regardless of meter set type and design. (See Figure B in Appendix III, page 2)

c. All gas meters must be located in a readily accessible location and in an area that protects the gas meter from damage such as: Vehicles, water, ice, falling objects, etc.

(Note: Gas Meters will not be allowed to be installed behind any fenced area, under decks, in ceilings, or surrounded by any structure or enclosure that may prohibit 24 hour access.)

d. Meter sets will not be allowed to be installed in the following locations:

- (1) Under or in front of operable windows used for egress or any other building openings and doors.
- (2) Under or in front of building and appliance vents or other air intakes.

e. MPTN Utilities shall have the right to refuse installation of Gas Meter/Service if the desired location does not meet approval of the Director of Utilities.

§ 3. Typical Residential Meter Set Standard (See Figure B, page 2 of Appendix III)

a. Typical residential meters are as follows:

- (1) Normal residential meter capacity is: 500 scfh (standard cubic feet per hour- based upon 2"wc differential across the meter).
- (2) Normal delivery pressure to the customer is: 7" w.c. (water column) or 1/4 psi.
- (3) Other customer requirements for capacity and/or pressure must be requested at the time of completing an "Application for Gas Service". (Meter, service and other appurtenances may require upgrading in order to meet customer load demand.)

b. The gas service, meter, regulator, meter valve, and fabricated meter set shall be designed and installed by a MPTN Utilities approved vendors who are NGA Certified, and shall remain property of the MPTN Utilities Department.

c. MPTN Utilities standard for Residential Gas Meters is Elster American Diaphragm Meter class AC-250, MAOP 5 psi, odometer index, UV protective index cover, meter bar, measures in ccf.

d. Distance from centerline of the service riser to the outlet union (customer connection point), is 20 inches for a residential meter set.

e. Normal gas service piping from the main to the residential customer meter set is typically 3/4 inch or 1 inch Polyethylene (see 1a. above). A #12 coated copper wire is buried along with the plastic service terminating at the riser allowing electrical locating of the service line.

§ 4. Commercial / Industrial Meter Sets

a. Commercial / Industrial meter sets may vary in design and configuration because of increased flow and pressure requirements. Flow requirements may vary from 600 scfh to over 100,000 scfh. Customer requirements for delivery pressure may vary from 7" w.c. (.25 psi) to distribution pressure (40-60 psi).

b. Large capacity commercial / industrial sets shall be fabricated using welded and flanged fittings. MPTN Gas Meter standard is Itron Dattus, temperature and pressure compensated, which reads in ccf. Meter bypass is required to allow meter change out without customer interruption.

c. Isolation and Gas Service valves shall be ball or plug type valves, butterfly valves are not allowed.

d. Fluid filled gauges shall be installed on the inlet pipe and outlet piping of regulators. Regulator pressure setting shall be indicated on both the primary and secondary regulators.

e. Isolation to protect corrosion shall be installed at the point of connection to the customers gas piping

f. Above Ground gas piping and apertures shall be primed and painted. MPTN Utilities paint standard is as follows:

- (1) Primer – B58W00610-Macropoxy 646 Fast Cure Epoxy Part A (tinted to match finish color)
- (2) Finish: B65Y00337-Hi-Solids Polyurethane Gloss (Part S) Safety Yellow

g. MPTN Utilities Regulator standard is Actaris, consisting of primary and secondary regulators with proper isolation to allow change out or maintenance of the regulators without interruption to customer service.

h. The customer's engineer or architect shall provide specific pressure and flow requirements in order to design and build the correct gas meter set.

i. The leased vendor, facility, or Project requesting gas service shall be responsible for the cost of design, 3rd party review, inspection, materials, painting of above ground piping, and installation of the meter/regulator set.

§ 5. Customer Piping Requirements

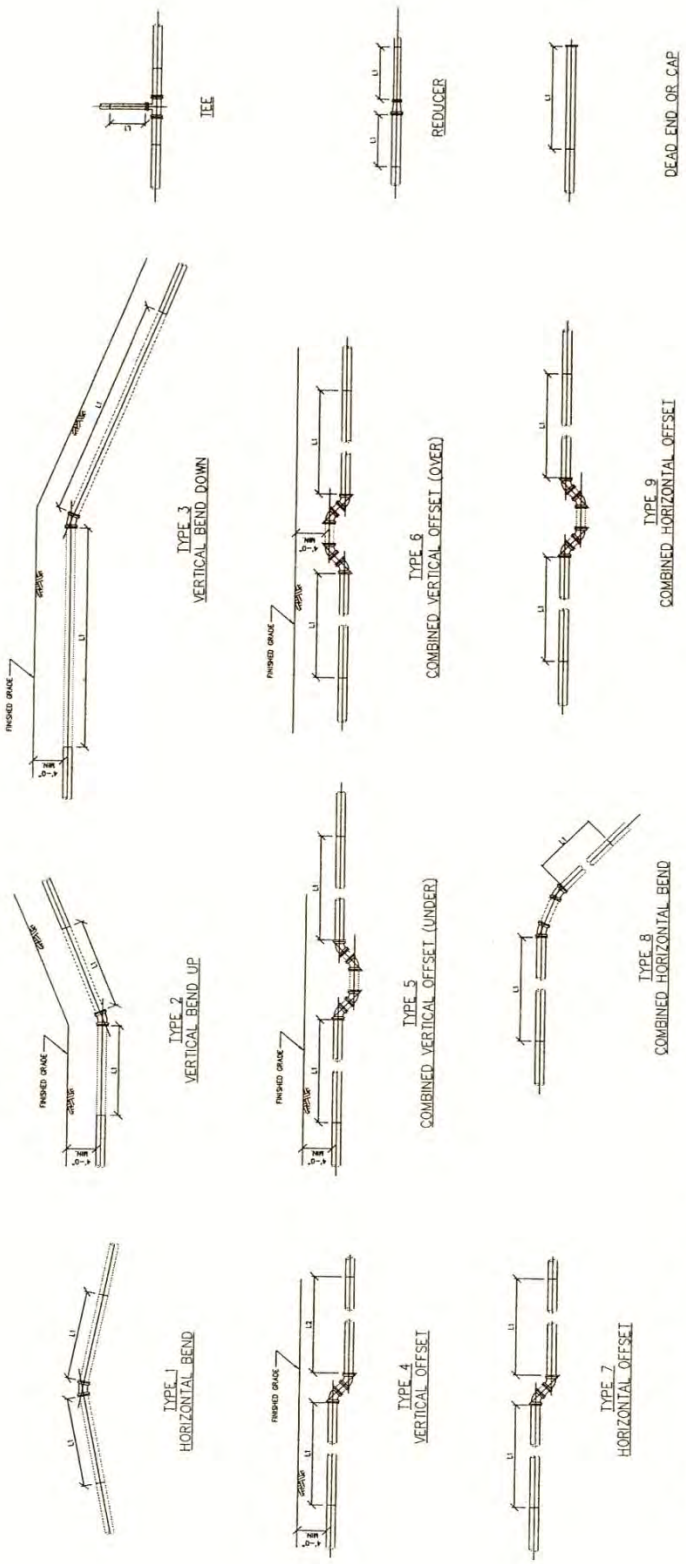
a. Customer-owned Piping: Is all piping, either above or below ground that is located after the outlet connection of the meter; or in the case of fabricated meter sets, the first connection point (which may be a union, flange or coupling) that is located after the fabricated section of the meter setting.

b. MPTN Utilities does not provide maintenance on Customer-owned gas piping; which includes: repairs on piping and appliances (if needed), locating for excavation and periodic inspection for leaks and corrosion.

- c. The final tie-in of the gas line to the outlet (customer) side of the meter is the Customer and must be made by a qualified installer who shall adhere to the guidelines set forth in the latest edition of the American National Standard "National Fuel Gas Code", also identified by National Fire Protection Association #54 and ANSI Z223.1. [Ref. VOM Ord. 8-2-10 (B)]
- d. Customer piping connected to the meter set must be black iron. Corrugated Stainless Steel Tubing (CSST) is not allowed for use as piping system at meter connection.
- e. Customer piping that will be operated at a pressure of 10 psi or more, must be welded.
- f. Installation will not be considered complete until a pressure test of all piping and appurtenances conducted in the presence of a MPTN Building Code Inspector. (labor, materials, and equipment to be furnished by the contractor)
- g. MPTN Utilities shall have the right and option to demand changes, removal, or replacement of any pipe, fixture, or apparatus which is considered to be faulty, inadequate, or hazardous, provided, however, that this provision shall not obligate the MPTN Utilities in any way or manner. MPTN Utilities shall have the right to refuse or discontinue gas service without notice to its customers if MPTN Utilities finds any apparatus or appliance in operation which would be detrimental or hazardous to the efficient operation of the existing facilities.
- h. Temporary service (e.g. for construction) is not permitted in residential construction. All piping, appliance valves and vent piping must be in place before a final pressure test will be allowed and final connection to the meter set is made.
- i. Customer-owned yard lines (e.g.: yard lights, gas grills, pool heaters, etc.); Shall be installed by use of standard installation procedures as outlined in the "National Fuel Gas Code", also identified by National Fire Protection Association #54 and ANSI Z223.1.
- j. Polyethylene gas pipe
 - (1) must be only used in a below-ground application (installed with #12 copper trace wire).
 - (2) All connections must be made below-ground, PE pipe cannot terminate aboveground.

APPENDIX I:
WATER TRANSMISSION AND DISTRIBUTION
STANDARD DRAWING DETAILS

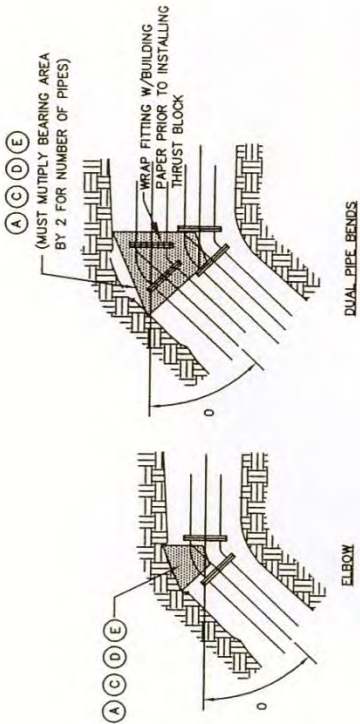
MINIMUM PIPE RESTRAINTS



| MINIMUM RESTRAINED LENGTH OF PIPE FOR EACH SIDE OF FITTING (FEET) 12" DI WATER MAINS (TEST PRESSURE 200 PSI) | | | | | | | | | | | |
|---|----------------------------|------------|----|--------|-----|--------|-----|--------|-----|-------------------|-----|
| DIAMETER (in) | ANGLE OF BEND (DEGREES) | TYPE 1 & 2 | | TYPE 3 | | TYPE 4 | | TYPE 5 | | TYPE 6, 7, 8, & 9 | |
| | | BARE | | BARE | | BARE | | BARE | | BARE | |
| 6" TO 12" | 11.25 | 4 | 11 | 22 | 8 | 22 | 8 | 22 | 8 | 22 | 8 |
| 6" TO 12" | 22.5 | 8 | 22 | 45 | 16 | 45 | 16 | 45 | 16 | 45 | 16 |
| 6" TO 12" | 45 | 16 | 45 | 93 | 33 | 93 | 33 | 93 | 33 | 93 | 33 |
| 6" TO 12" | 90 | 32 | 93 | 112 | 112 | 112 | 112 | 112 | 112 | 112 | 112 |
| 16x12 | TEE | - | - | - | - | - | - | - | - | 61 | - |
| 16x16 | TEE | - | - | - | - | - | - | - | - | - | 142 |
| 16x12 | TEE | - | - | - | - | - | - | - | - | - | 110 |

ALL FITTINGS MECHANICALLY RESTRAINED USING MEGALUGS (EBAA SERIES 1100 OR APPROVED EQUAL). WHEN THE MINIMUM REQUIRED RESTRAINED LENGTH EXCEEDS THE LENGTH TO THE NEXT JOINT, USE RESTRAINED PUSH ON JOINT PIPE AS SPECIFIED (EBAA SERIES 1700 OR APPROVED EQUAL)

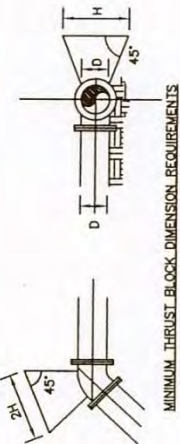
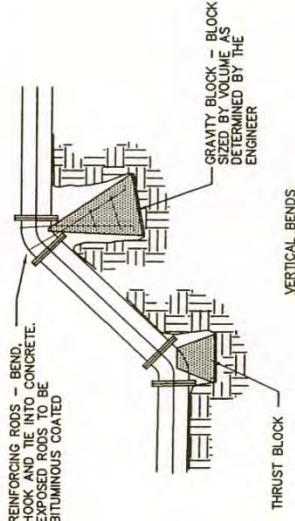
| SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL AREAS SHOWN ARE BASED ON 100 PSI TEST PRESSURE (SEE NOTE BELOW) | | | | | | | | | | | | |
|---|---|-----|-----|-----|-----|------|------|------|------|------|-----|-----|
| REACTION TYPE | PIPE SIZE | | | | | | | | | | | |
| | 4" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" | 30" | 36" |
| A 90° ELBOW | 0.9 | 2.2 | 3.9 | 5.6 | 8.6 | 10.9 | 15.4 | 18.0 | 24.1 | 34.6 | | |
| B 180° TEE | 0.7 | 1.6 | 2.8 | 4.2 | 6.1 | 8.4 | 10.9 | 13.9 | 17.0 | 24.5 | | |
| C 45° ELBOW | 0.5 | 1.2 | 2.1 | 3.0 | 4.7 | 5.9 | 8.3 | 9.7 | 13.0 | 18.8 | | |
| D 22° ELBOW | 0.3 | 0.6 | 1.1 | 1.5 | 2.4 | 3.0 | 4.3 | 5.0 | 6.6 | 9.6 | | |
| E 11° ELBOW | 0.1 | 0.3 | 0.5 | 0.8 | 1.2 | 1.5 | 2.1 | 2.5 | 3.3 | 4.8 | | |
| OTHER TEST PRESSURES FOR THE ABOVE REACTIONS | SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTIONAL TO THE ABOVE TABLE. FOR INSTANCE AT 200 PSI TEST PRESSURE THE ABOVE NUMBERS DOUBLE. THE ABOVE NUMBERS REPRESENT MINIMUM ALLOWABLE SIZES FOR THRUST BLOCKS | | | | | | | | | | | |



* ACTUAL TEST PRESSURE IS 200 PSI AND ALL BEARING AREA NUMBERS ABOVE MUST BE MULTIPLIED BY 2

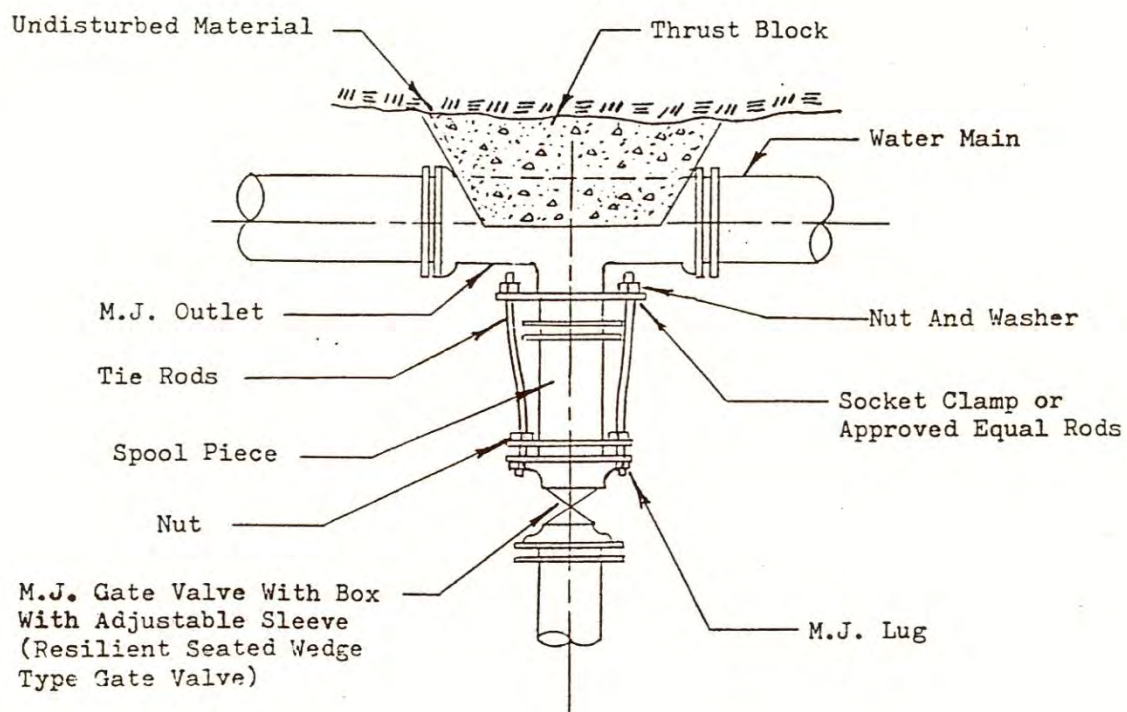
NOTES

1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BOARD IN FRONT OF ALL CAPS BEFORE POURING THRUST BLOCK.
4. REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF ONE TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.

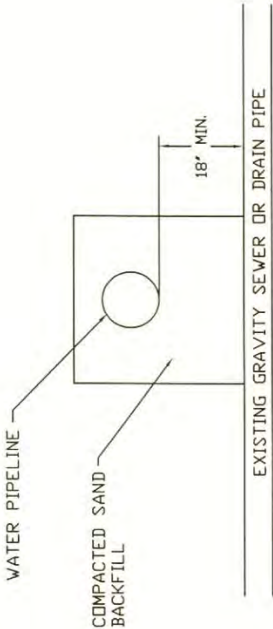


TYPICAL THRUST BLOCK DETAILS AND DIMENSIONS

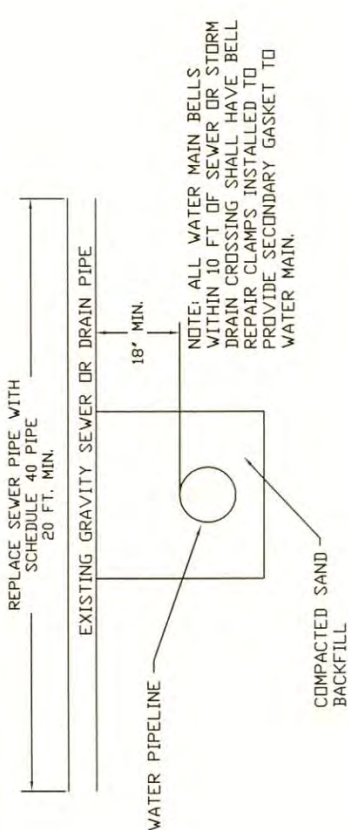
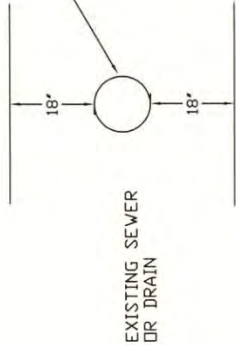
NOT TO SCALE



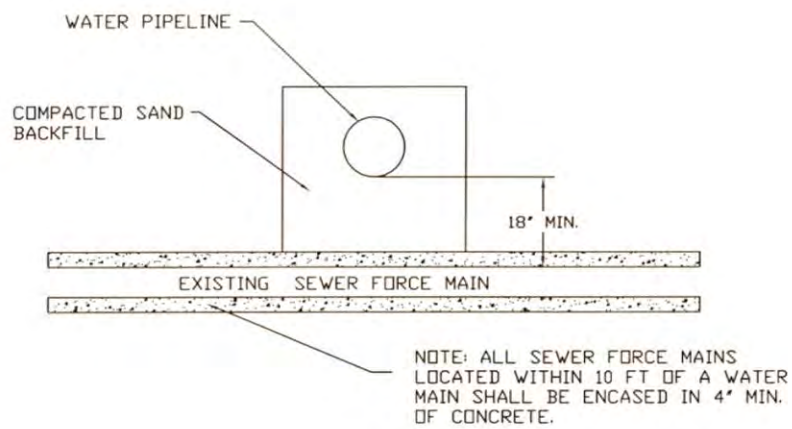
TYPICAL VALVE CONNECTION
Not To Scale



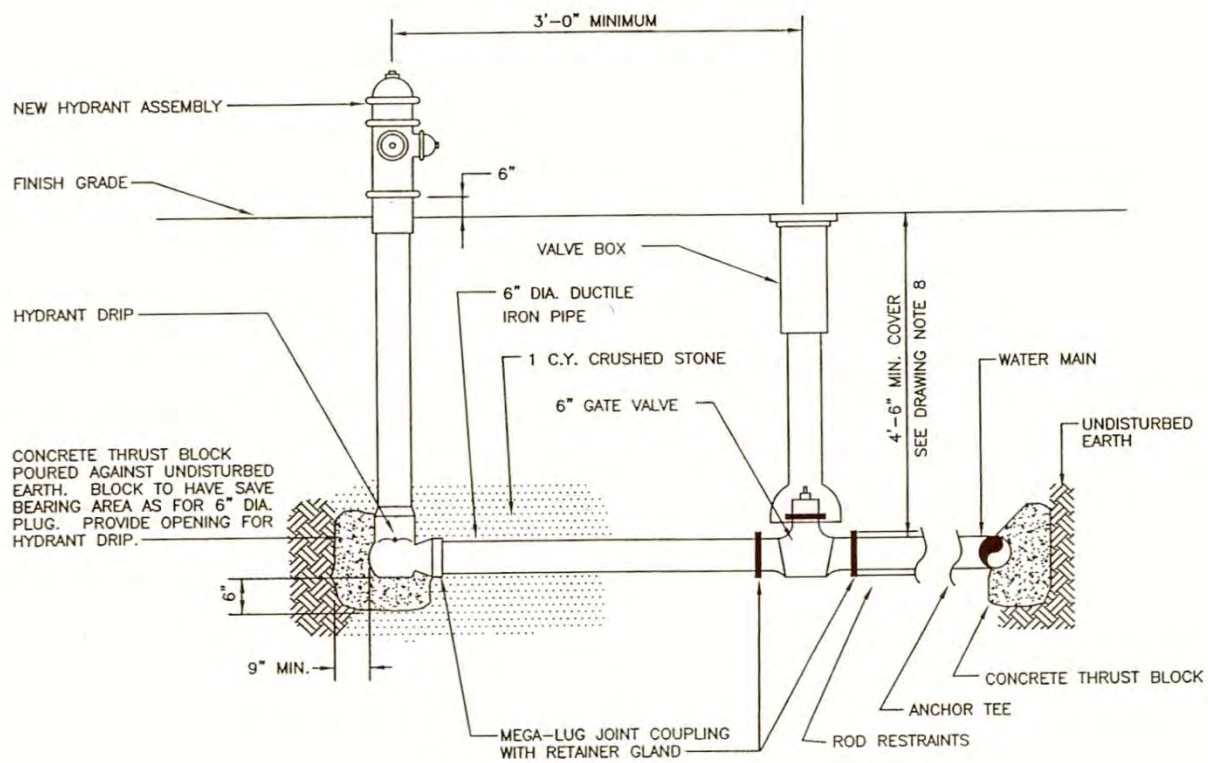
NORMAL LIMITS OF OUTSIDE SURFACE OF WATER LINE. PIPES TO BE INSTALLED WITHIN THESE LIMITS MUST CONFORM TO DETAILS SHOWN.



WATER MAIN CROSSING AT GRAVITY SEWER

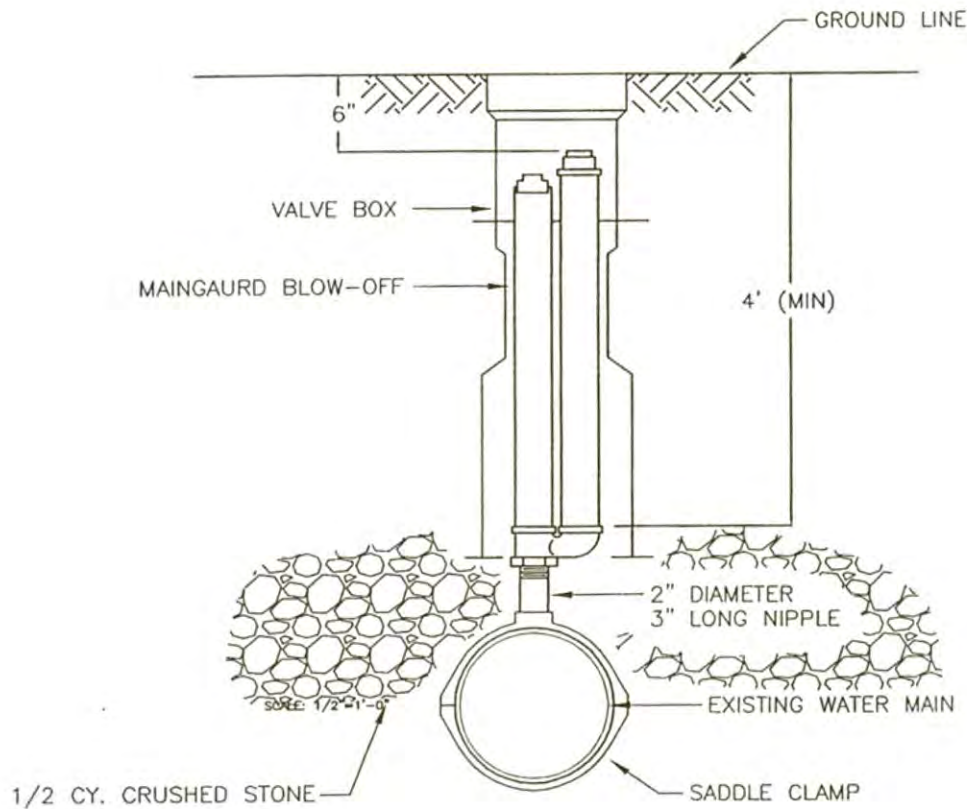


WATER MAIN CROSSING AT FORCE MAIN



TYPICAL HYDRANT INSTALLATION DETAIL

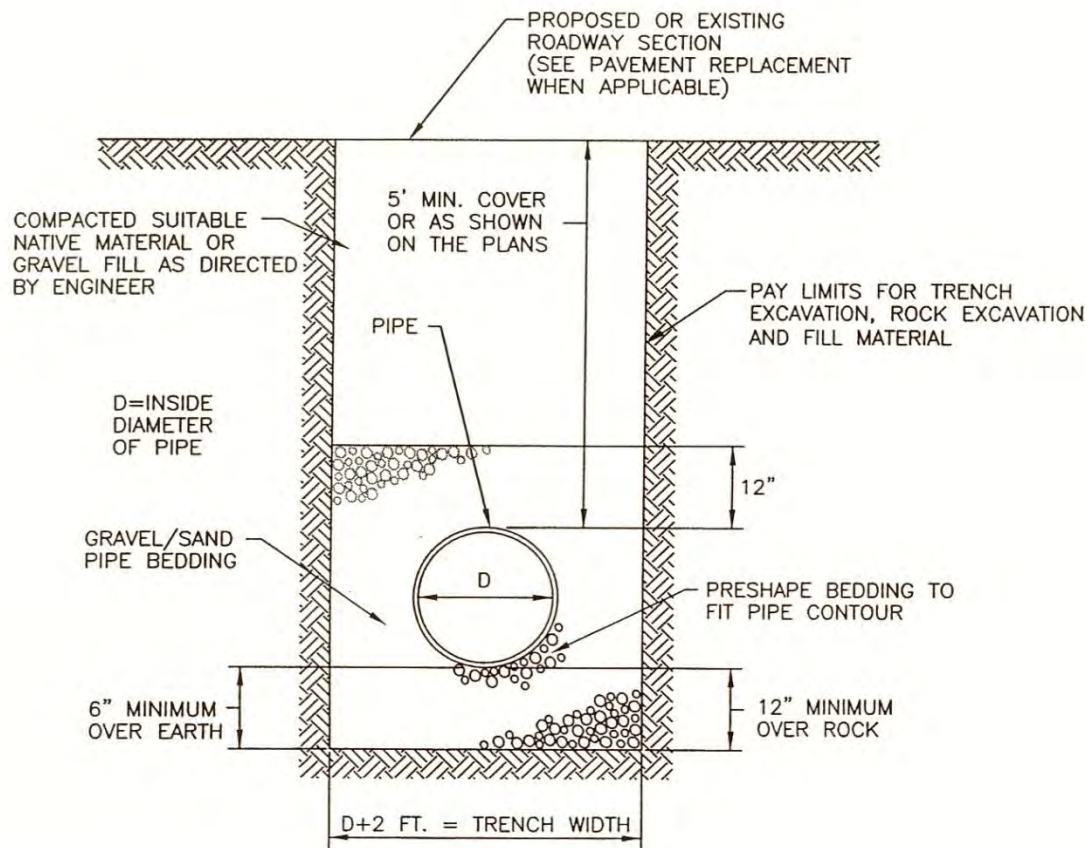
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NOTES:

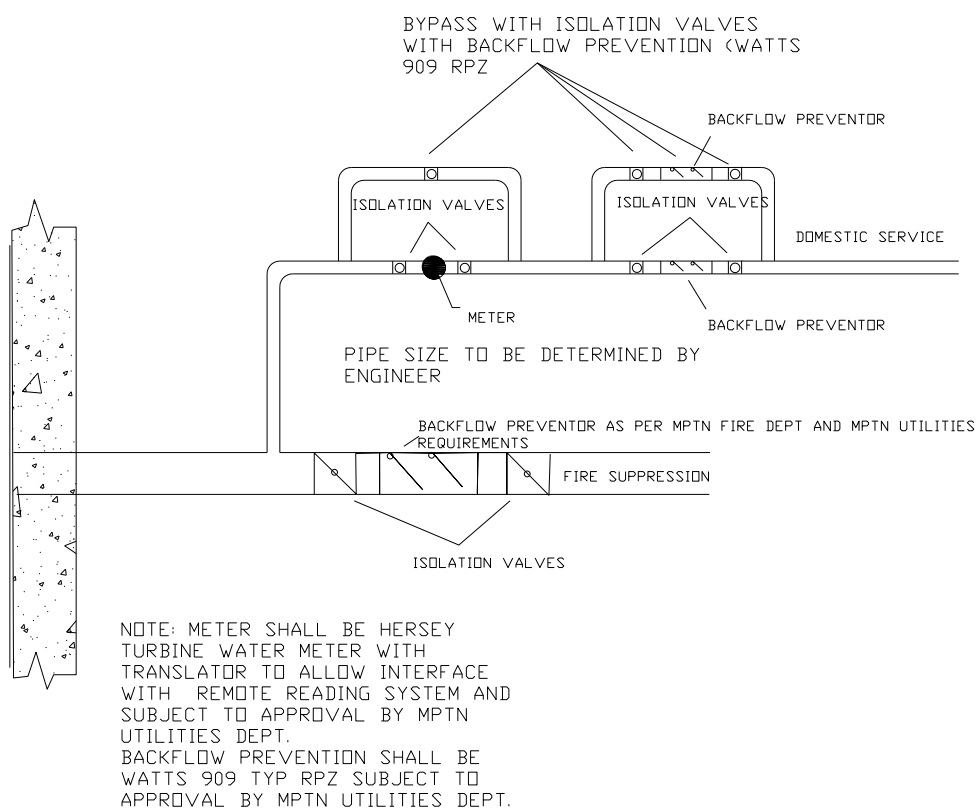
1. BLOW-OFF HYDRANTS SHALL BE NON-FREEZING, SELF DRAINING TYPE, SET UNDERGROUND IN A 5 1/4" VALVE BOX.
2. THESE HYDRANTS WILL BE FURNISHED WITH A 2" FIP INLET, A NON-TURNING OPERATING ROD, AND SHALL OPEN TO THE LEFT.
3. ALL WORKING PARTS SHALL BE OF BRONZE-TO-BRONZE DESIGN, AND BE SERVICABLE FROM ABOVE GRADE WITH NO DIGGING.
4. THE OUTLET SHALL BE A 2" FIP COUPLING WITH PLUG, AS MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO, OR APPROVED EQUAL.

MANUAL AIR BLOW-OFF VALVE

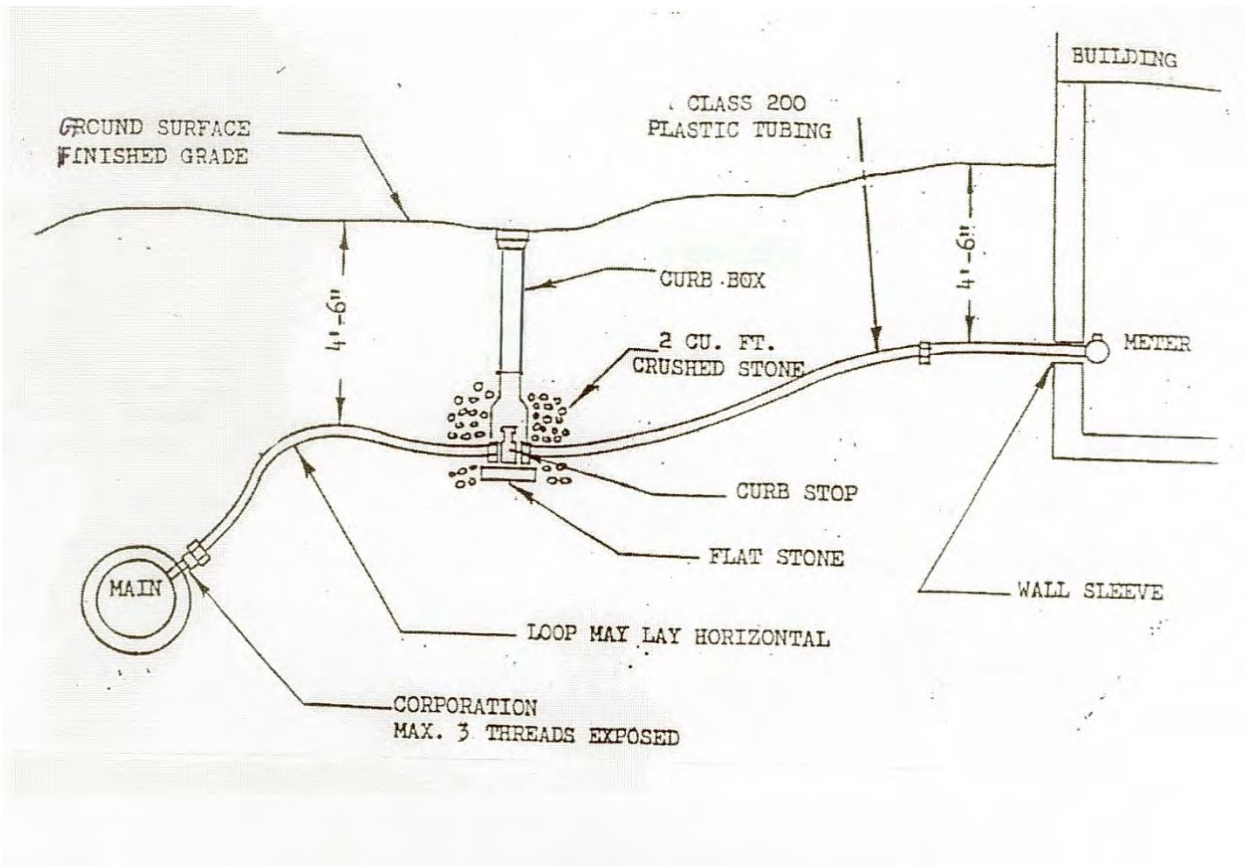


WATER MAIN TRENCH DETAIL

NOT TO SCALE



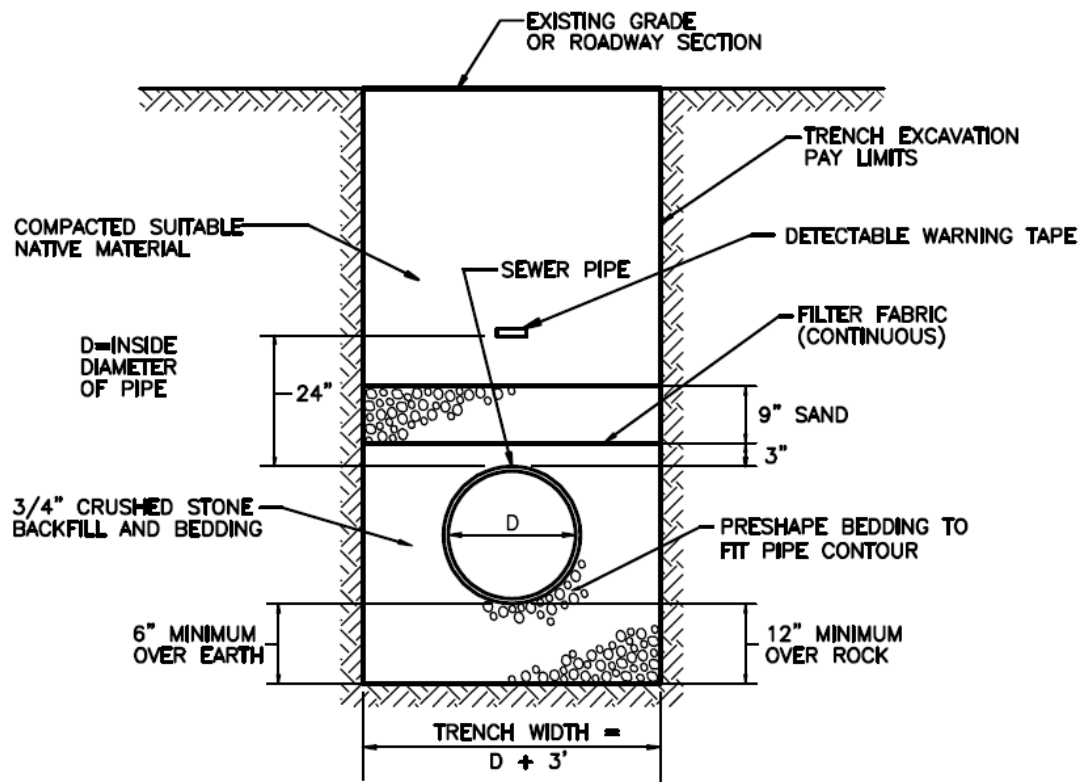
TYPICAL METER/BACKFLOW SCHEMATIC



WATER SERVICE DETAIL

- MINIMUM SIZE OF ANY WATER SERVICE INTALLED FROM MAIN TO PROPERTY LINE SHALL BE 1-1/2"
- SMITH BLAIR DOUBLE SADDLE TYPE SB313 SHALL BE USED FOR WATER TAPPING SLEEVE
- CTS SDR 9 HDPE Pipe CLASS 200 PLASTIC TUBING MUST BE INSTALLED FROM MAIN TO PROPERTY ASSIGNMENT LINE
- CTS SDR 9 HDPE Pipe CLASS 200 PLASTIC TUBING MUST BE INSTALLED FROM PROPERTY ASSIGNMENT LINE TO BUILDING
- GATE BOX SHALL BE TYLER UNION - 21/2" SLIP SERVICE BOX WITHOUT ROD AND RING WITH ENLARGED BASE TO ACCOMMODATE 1-1/2" GATE VALVE
- ALL COUPLINGS AND CORPORATIONS SHALL BE MUELLER COMPRESSION FITTINGS
- SERVICE LINES MUST BE CAULKED INSIDE FOUNDATION WALL SLEEVE
- BACKFILL: HAND—FILL WITH SAND OR EQUAL TO 6" AROUND PIPE

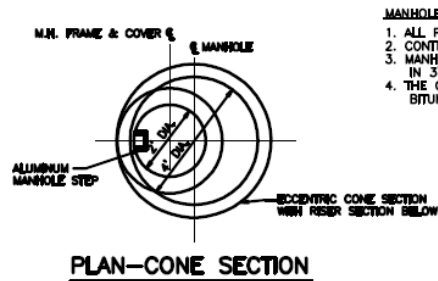
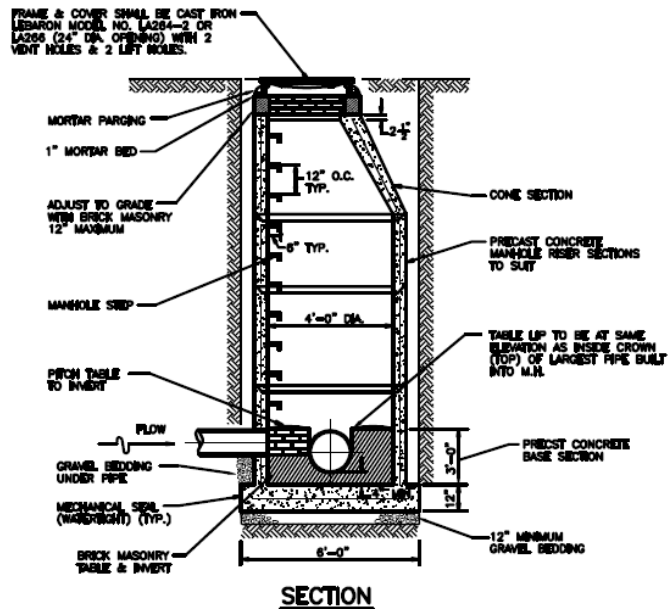
APPENDIX II:
SEWER CONSTRUCTION DETAILS



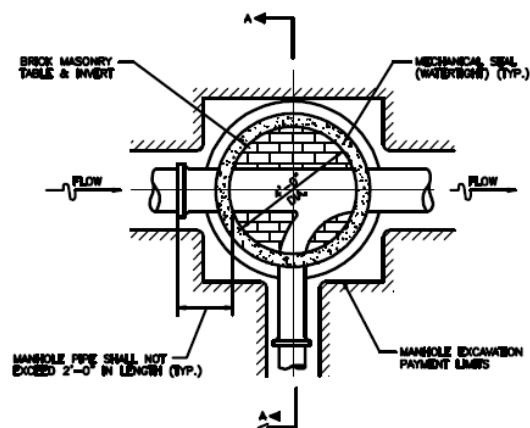
SANITARY SEWER TRENCH DETAIL

NOT TO SCALE

S-1

**MANHOLE NOTES**

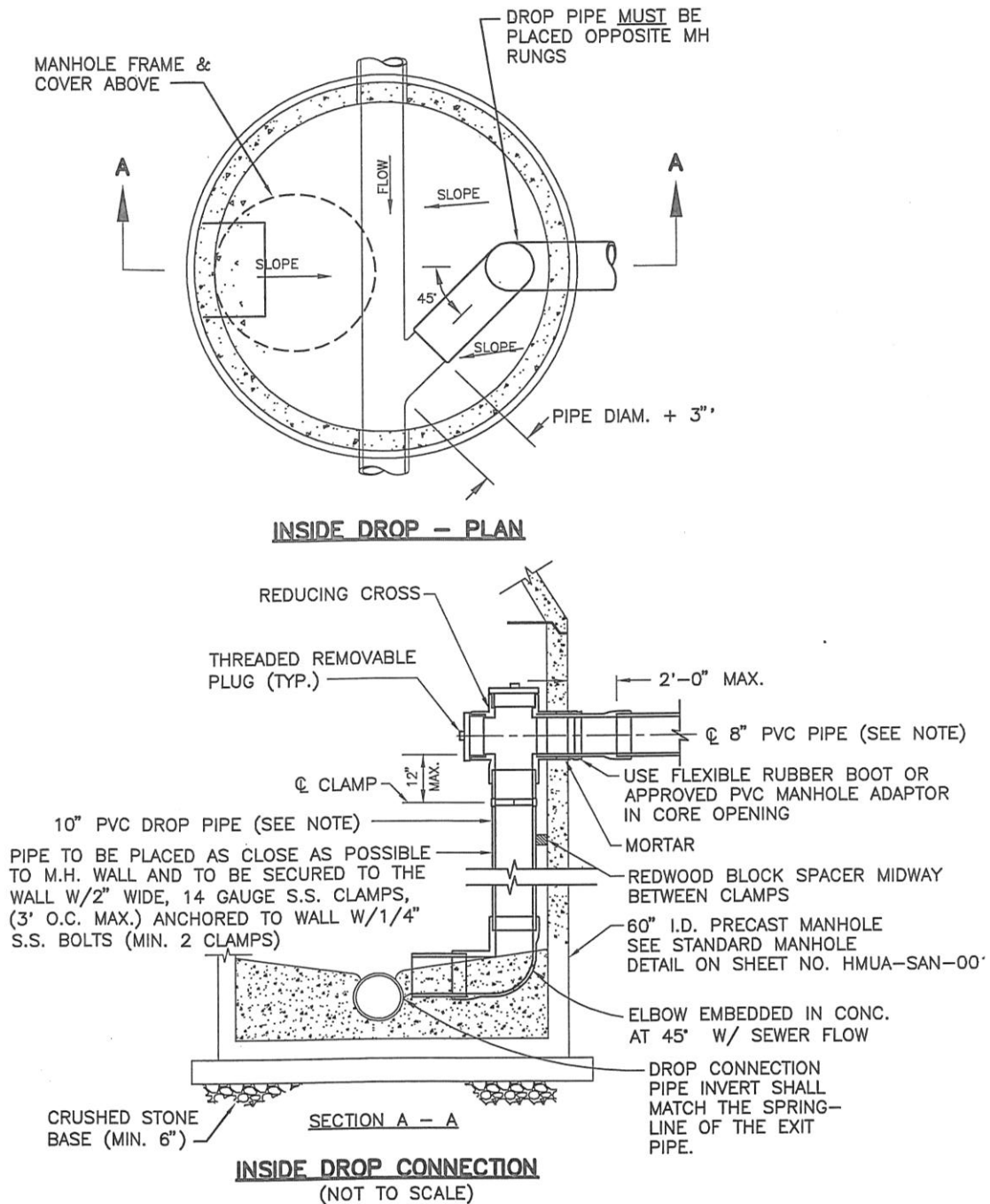
1. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALL OF STRUCTURE.
2. CONTRACTOR SHALL MORTAR IN LIFTING HOLES.
3. MANHOLE COVERS SHALL HAVE THE WORDS "SEWER" CAST INTO THE CENTER IN 3" LETTERS.
4. THE OUTSIDE OF MANHOLE STRUCTURES SHALL BE PAINTED WITH 2 COATS OF BITUMINOUS MATERIAL.



SEWER MANHOLE DETAIL

NOT TO SCALE

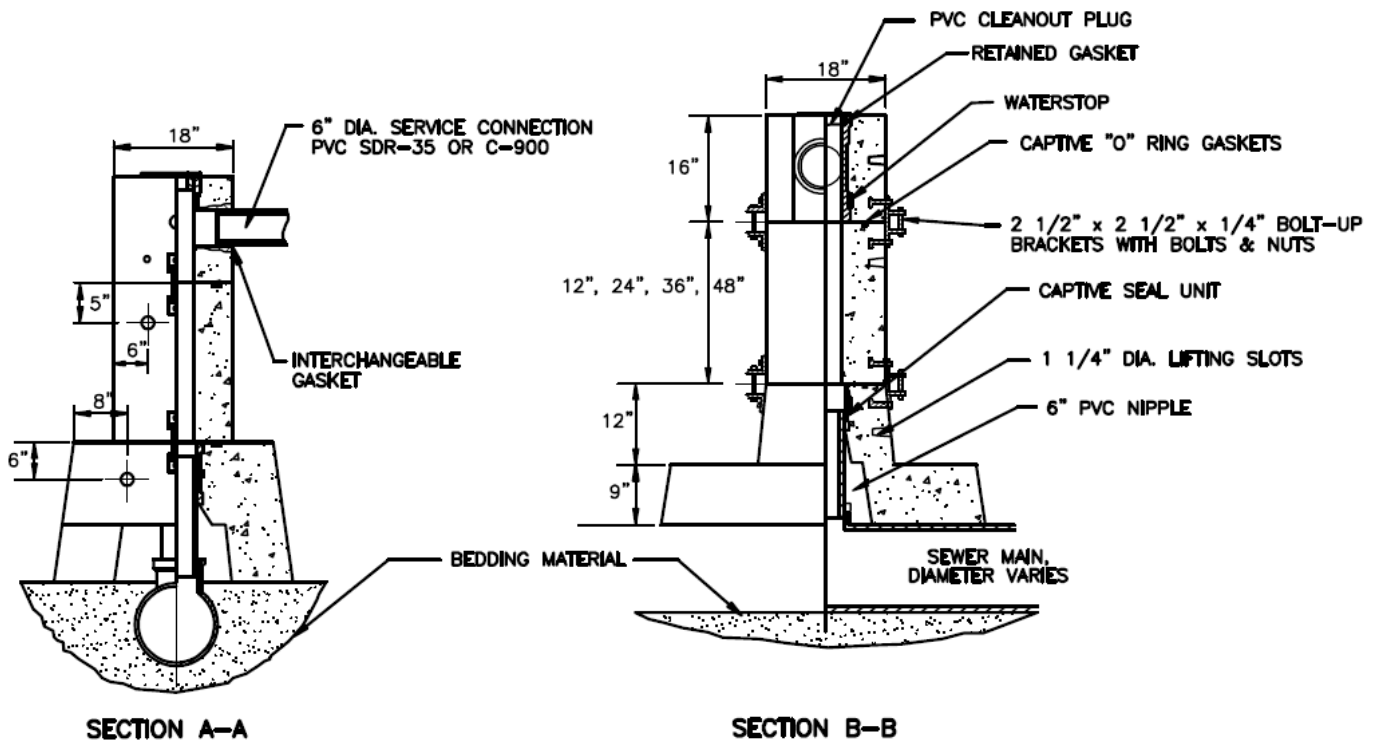
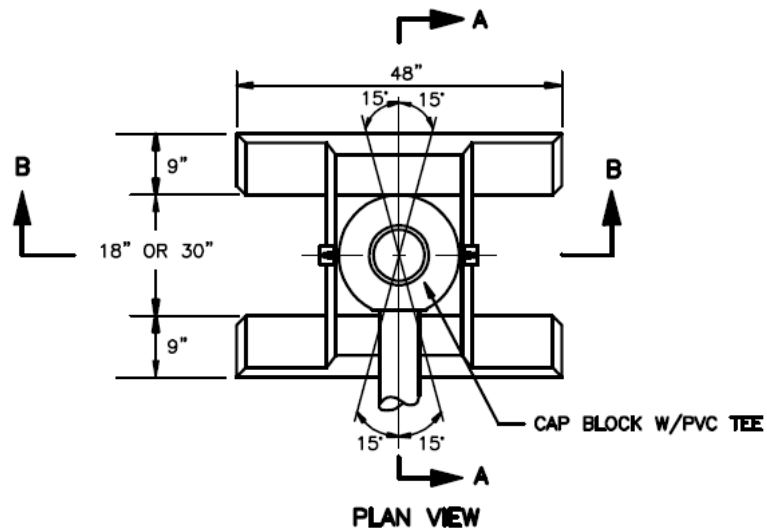
S-2



S-3

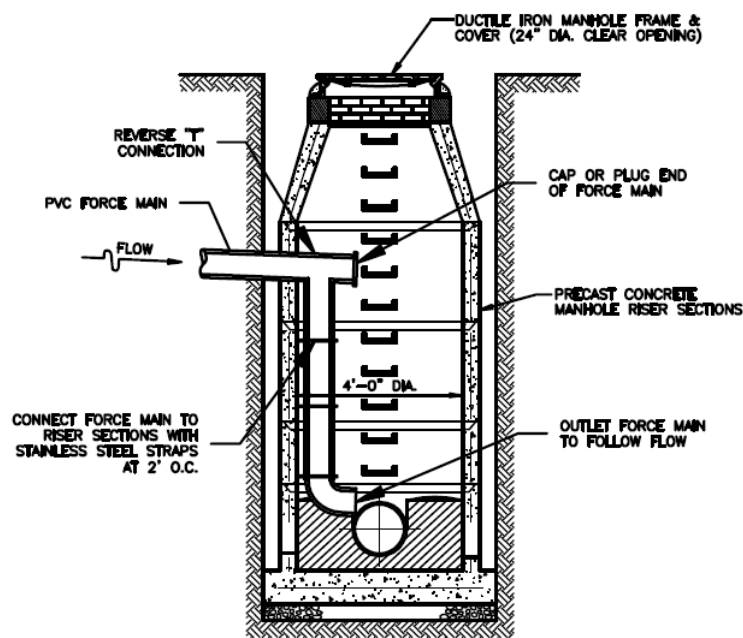
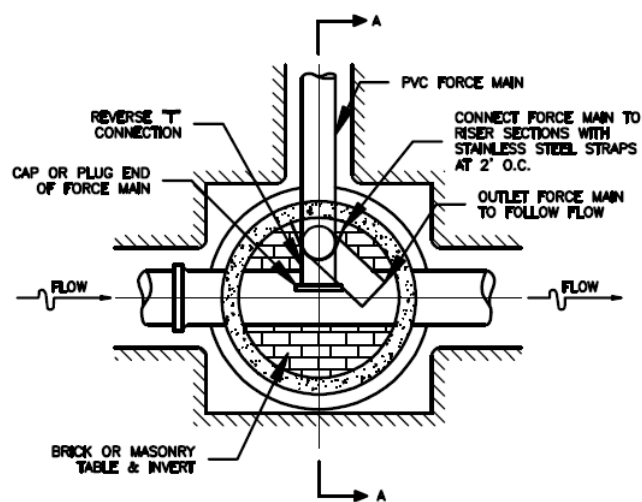
**DESIGN AND
DIMENSIONAL
INFORMATION**

- 1) CONCRETE STRENGTH 5,000 PSI
● 28 DAYS. DENSITY 150 PCF.
- 2) CEMENT PER ASTM C150-81.
- 3) REINFORCING PER ASTM A615.
- 4) PVC FITTINGS PER ASTM D3034.

**PRECAST SEWER CHIMNEY**

SUPERIOR PRODUCTS DISTRIBUTOR, INC. OR EQUAL
NOT TO SCALE

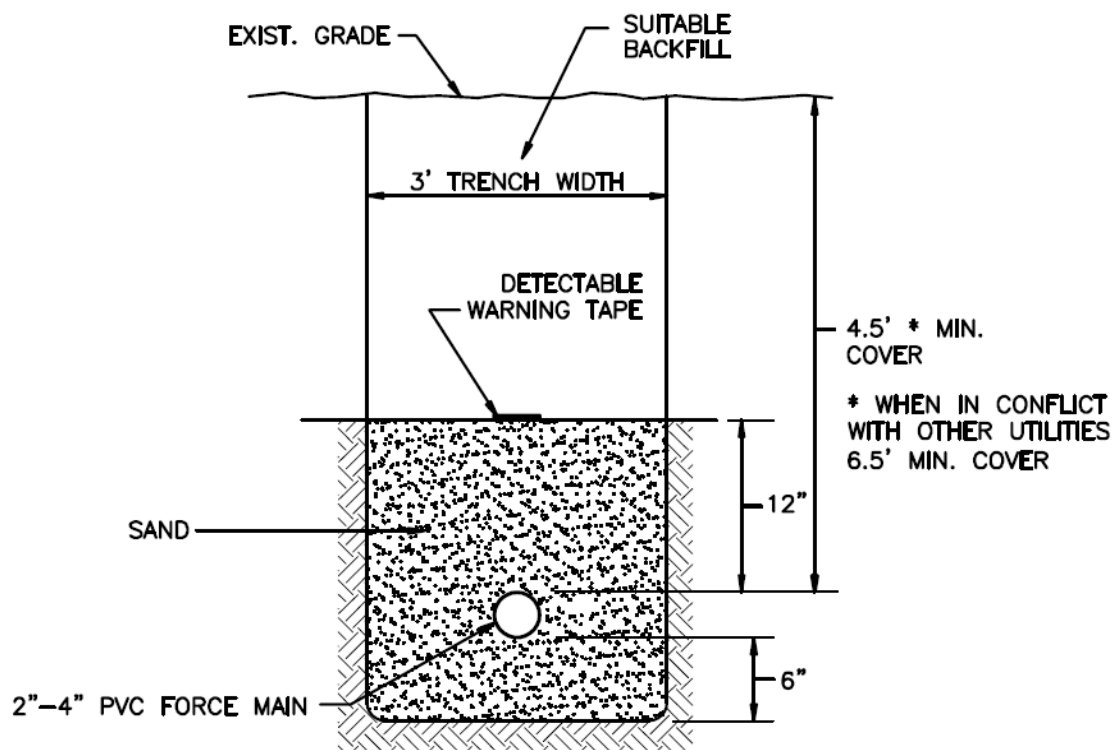
S-4

**SECTION****PLAN - INVERT TABLE**

FORCE MAIN CONNECTION INTO STANDARD MANHOLE

NOT TO SCALE

S-5



FORCE MAIN TRENCH DETAIL
NOT TO SCALE

S-6

APPENDIX III:
GAS SERVICE INSTALLATION DETAILS:

Figure A

APPROVED LOCATION OF RESIDENTIAL METER SET

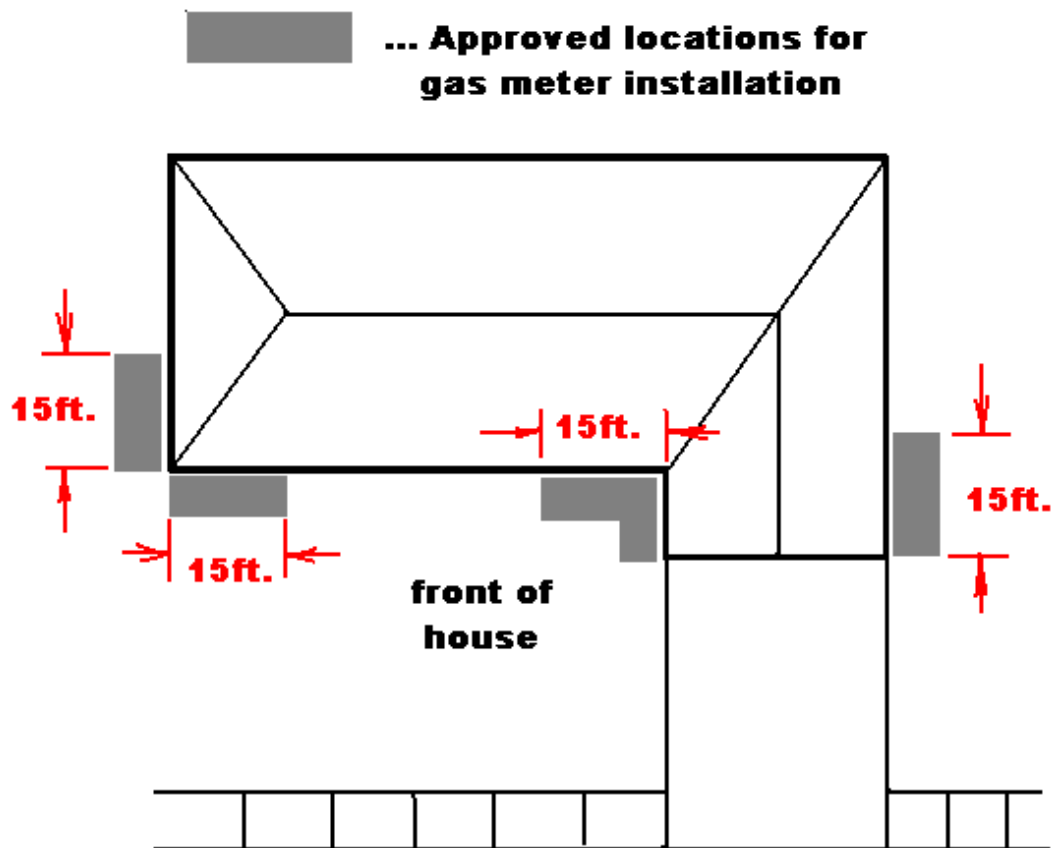
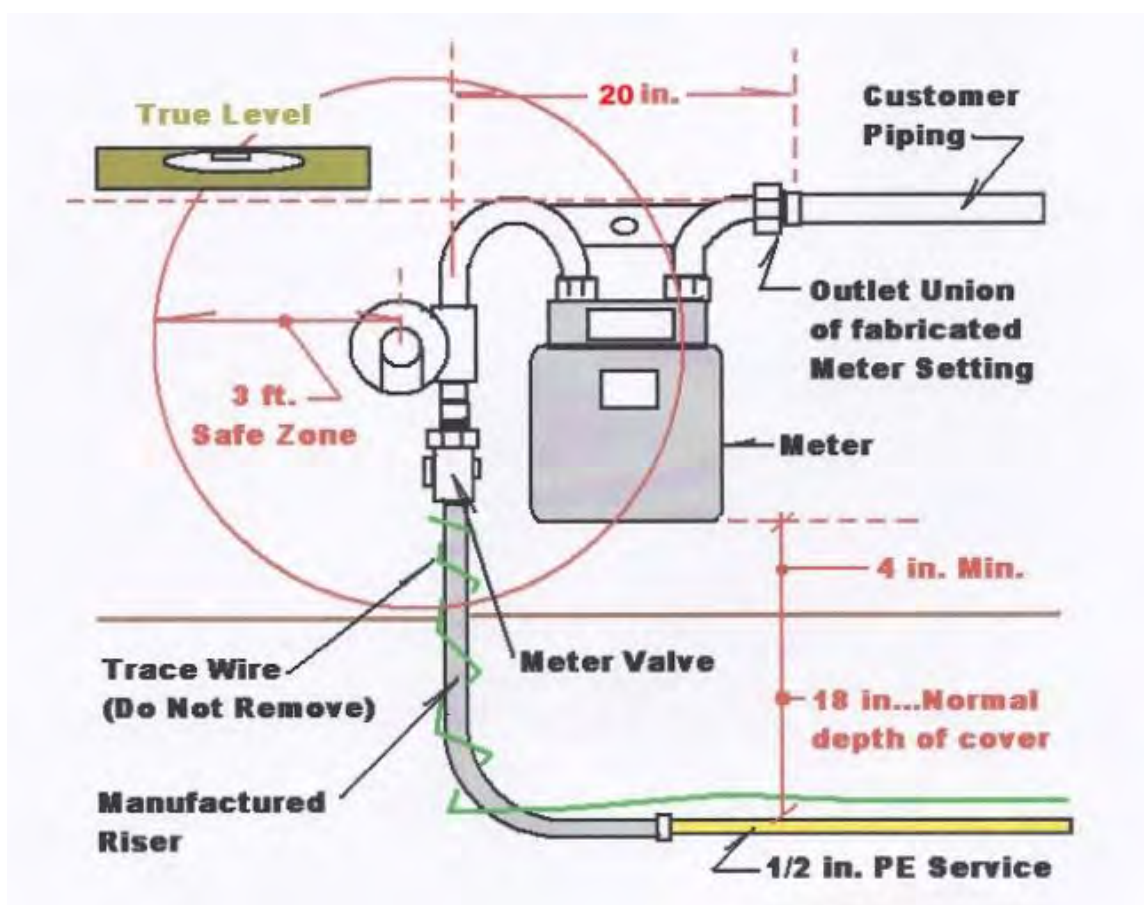


Figure B

RESIDENTIAL GAS METER STANDARD

3 ft. "SAFE ZONE"

All ignition sources such as: electric meters, air conditioners, etc. **MUST NOT** be located within 3 ft. in all directions from the center of the regulator vent on the meter setting.

Keep meter sets a safe distance from windows, doors, air intakes or other vents.

NEVER install a meter set directly below any window that may be opened and used for egress

TITLE 10. RECORD DRAWING STANDARDS

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| ANNEX B – Gaming Areas | | |

TITLE 10. RECORD DRAWING STANDARDS**CHAPTER 1. GENERAL REQUIREMENTS**

a. The MPTN Land Use Law requires that Permittees submit accurate Record drawings prior to the issuance of a Certificate of Completion by the Land Use Commission (14 M.P.T.L., ch. 7, § 2b).

b. Record drawings are to be prepared by the Design Professional in Responsible Charge and shall document all site changes as a result of the Land Use Activity. Record drawings are a final amended set of construction documents updated with all information recorded on both the As-built drawings and Survey drawings.

- (1) As-built drawings are required to be maintained, by contractors, throughout construction, to document all changes to the original construction documents (14 M.P.T.L. ch. 6., § 2b(2)). As-built drawings are typically associated with interior construction work and must depict:
 - (a) in red ink, all changes to the original construction documents; including,
 - (b) the accurate measured location, size and nature of any concealed project element such as structural elements, accessories, equipment, devices, plumbing lines, valves, mechanical equipment, and the like.
- (2) Survey drawings are required to be prepared by a Qualified Surveyor throughout construction for the purpose of site documentation (14 M.P.T.L. ch. 6., § 2b(3)). Survey drawings are typically associated with exterior work and must depict the accurate location, size, and nature of all items noted, and to the standards specified, within Chapter 2 of this Title.
- (3) Land Use Commissioners have the authority to review and request copies, throughout construction, of both the As-built and Survey drawings to confirm compliance with the standards of this Title (14 M.P.T.L. ch. 6., § 2b(4) & (5)).

c. Submission Requirements

- (1) The Permittee or Project Manager shall review hard copies or electronic files to confirm information prior to submission to the Commission.
- (2) The Permittee shall submit Record drawings to the Land Use Commission in both hard copy and electronic format.
 - (a) Hard Copy Submission
 - (i) Three (3) sets of complete drawings shall be required.
 - (ii) All drawings are to be presented on the preferred D Size (24" x 36").
 - (iii) Smaller sizes may be used where the Commission has determined it to be sufficient.
 - (iv) E size paper format (36" x 48") is not acceptable and therefore is not to be used.
 - (b) Electronic Submission
 - (i) A minimum of four (4) sets of electronic drawings shall be submitted; two (2) sets in Adobe Reader (i.e. PDF) and two (2) in AutoCAD format (i.e. DWG). An additional set of each will be required when the Land Use Activity involves utility infrastructure.
 - (ii) All electronic submissions shall be made in physical form, either on CD or DVD-ROMs.
 - (iii) AutoCAD files shall contain all information organized as specified within Chapter 3, AutoCAD Format Standard, of this Title.

d. Refusal of Record Drawings

- (1) The Commissioner representing Planning shall review the submitted Record drawings for conformance with Chapter 3, Survey Drawings, and Chapter 5, AutoCAD Format Standard, provisions of this Title.
- (2) Either the Commissioner representing Planning or the Commissioner representing the Gaming Enterprise, or both, shall review the Record drawings for conformance with Chapter 5, AutoCAD Format Standard, of this Title.
- (3) Drawings & Electronic Files that do not follow the standards listed herein may be refused until they conform to standards.

e. Revisions

- (1) Submitted drawings shall contain a revision date and brief description of the revision on each revised sheet
- (2) Revisions shall be clearly identified using a revision cloud and revision number. In addition, the cover sheet shall show the latest applicable revision date.

CHAPTER 2. SURVEY DRAWING STANDARDS

§ 1. Field Survey Specifications

a. General

- (1) Horizontal surveys shall comply with the minimum standards for an A-2 survey as stated in the MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT adopted 9/26/96, unless otherwise directed by the Mashantucket Pequot Tribal Nation.
- (2) Vertical surveys shall comply with the minimum standards for a V-2 survey as stated in the MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT adopted 9/26/96, unless otherwise directed by the Mashantucket Pequot Tribal Nation. Vertical Surveys shall be based upon NGVD 29, unless otherwise directed by the Mashantucket Tribal Nation.
- (3) Topographic surveys shall comply with the minimum standards for a T-2 survey as stated in the MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT, adopted 9/26/96, unless otherwise directed by the Mashantucket Pequot Tribal Nation.
- (4) The Mashantucket Pequot Tribal Nation Planning Dept. has its own Survey Control and will provide this information to vendor upon reward of contract.

b. Field Survey Classes of Accuracy Sec. 20-300b-11

- (1) All surveys prepared in metric format shall use 1 meter = 3.28083333 U.S. Survey feet.
- (2) Horizontal Accuracy.

- (a) Each survey depicting horizontal locations shall conform to a Horizontal Accuracy Class the tolerance of which is defined as follows:

| Class | Positional | Linear | | (Use ratio for D>...) | Angular |
|-------|---|---------|---------|------------------------|---------|
| | | Feet | Meters | | |
| AA | 1: 15,000 | ± 001' | ± .003m | [1:22,500@D>225'(69m)] | ± 8 |
| A-1 | 1: 10,000 | ± 0.01' | ± .003m | [1:15,000@D>150'(46m)] | ± 10 |
| A-2 | 1: 5,000 | ± 0.02' | ± .006m | [1:7,500@D>150'(46m)] | ± 20 |
| B | 1: 1,000 | ± 0.5' | ± .15m | [1:1,500@D>750'(229m)] | ± 2' |
| C | ± 2' | ± 2' | ± .6m | | ± 30' |
| D | compilation of existing data-NOT A FIELD SURVEY | | | | |

- (b) Linear accuracy's expressed as \pm apply to distances less than ($<$) those prescribed as a ratio.
- (3) Vertical Accuracy.
- Each survey depicting vertical location shall conform to a Vertical Accuracy Class the tolerance of which is defined as follows:

| Class | Level Loop Closure Greater Than One Mile | | Level Loop Closure Less Than One Mile | |
|--|--|----------|---------------------------------------|----------|
| | Feet | Meters | Feet | Meters |
| | | | | |
| V-1 | ± .02√M | ± .005√K | ± .006√N | ± .002√N |
| V-2 | ± .035√M | ± .008√K | ± .010√N | ± .003√N |
| V-3 | ± .05√M | ± .012√K | ± .020√N | ± .006√N |
| M or K = The length of the level loop in miles/kilometer | | | | |
| N = The number of instrument setups in the level loop | | | | |

c. Topographical Survey.

- (1) Each Topographic Survey shall conform to a Topographic Accuracy Class the tolerance of which is defined as follows:

| Class | Horizontal Position | | Contour Interval Test |
|-------|---------------------|---------------------|-------------------------------|
| | Feet | Meters | |
| T-1 | 1/40 of map scale | 1/1500 of map scale | 90% within ½ contour interval |
| T-2 | 1/40 of map scale | 1/1500 of map scale | 80% within ½ contour interval |

- (2) Classes T-1 and T-2 are to be used for ground survey procedures.
- (3) Class T-3 applies to photogrammetric maps for which the surveyor provides the horizontal and vertical control. Refer to the National Map Standards for Photogrammetric Mapping for requirements.
- (4) Class T-D applies to a topographic map compiled from various sources of information not necessarily verified by the surveyor.
- (5) In using Topographic Accuracy Class T-1 or T-2, the surveyor is expressing confidence that should a test profile be run in the field, a plotted comparison with a profile scaled from the map shall be in agreement within the above criteria and the remainder shall be within the contour interval.

§ 2. Field Survey Requirements

The requirements specified within this section are provided by MPTN's Planning program, as a guide and may not be inclusive of all data required to be included in final Record drawings. Additional information may be required at the direction of the engineer, project manager or owner.

a. Utilities

(1) General Notes

- (a) For all new utilities including drainage, as-built data shall include the size and material of the conduits/pipes and in the case of multiple conduits/pipes, the number of each. Take photographs at major utility conflicts/crossings; number pictures same as field shot numbers.
- (b) Whenever existing utilities or drainage structures, conduits or pipes are encountered, whether in use or abandoned, provide as-built information as noted below.

(2) Electric / communications

(a) Conduits

Survey all conduits every 20 ft and at change in elevation or direction

(b) Duct banks

- (i) Survey top of concrete along centerline, but drawn to actual configuration
- (ii) Note width and depth
- (iii) Shots to be taken every 20 linear feet or change in elevation or direction.

(c) Manholes

Survey center of top section for round and note diameter or for square, four corners and center of top of frame.

(d) Lighting and secondary electrical

Survey all site lighting including, conduits, hand holds, etc.

(e) Low voltage controls and conduit

- (i) Survey all site lighting including, conduits, hand holds, etc.
- (ii) Note description

(f) Structures

- (i) Survey center of top for round and note diameter or for square, four corners and center of top of frame.
- (ii) Locate all electrical equipment, (transformers, switch gears, hand holds, etc.)

(g) Grounding

Survey grounding system.

(3) Water Service

(a) Pipe

- (i) Shots to be taken every 20 ft. along center top of pipe and at change in elevation or direction.
- (ii) Diameter shall be noted

(b) Couplings

Survey center top of coupling; Note bend radius.

(c) Valves, Hydrants, Blow offs, Corporations

Survey center top of item and note size, type, material, etc.

- (d) Thrust Blocks
 - Survey location and size.
- (e) Heat Tracing
 - Survey and note type and size.
- (4) Sewer Line
 - (a) Sewer Manholes
 - Survey top of frame elevation and elevation of all inverts. Note flow direction.
 - (b) Gravity Sewer Pipe
 - (i) Survey all inverts. Identify size and type by layer per MPTN Standards.
 - (ii) Survey shots along pipe not required if installed by pipe laser.
 - (c) Sewer Force Mains
 - Survey at every change, bend or major elevation change. Survey not required at straight joints.
 - (d) Other structures
 - Survey center of top section for round and note diameter or for square, four corners and center of top. Survey base of structure, inverts, access hatches, etc.
- (5) Gas Service
 - (a) Gas Lines
 - (i) Survey at every change, bend and weld joint.
 - (ii) Note size and type
 - (b) Couplings/valves
 - (i) Survey center top of coupling
 - (ii) Note bend radius
 - (c) Meters and exterior gas related equipment
 - Survey location and note type, etc.
- (6) Drainage
 - (a) Catch Basins/Drainage Manholes
 - (i) Survey top of frame elevation at gutter line at center of frame and elevation of all inverts.
 - (ii) Note type (CL, C, double, etc.).
 - (b) Pipe
 - (i) Survey all inverts.
 - (ii) Note size and type
 - (iii) Survey shots along pipe not required if installed with pipe laser
 - (c) Sediment Control Structures
 - (i) Survey four corners and center of top of structure.
 - (ii) Survey base of structure, inverts, access hatch, etc.
 - (iii) Survey plunge pools, retention ponds and provide contours.
 - (iv) Note type
- (7) Irrigation
 - Survey all sprinkler heads/ handholds and irrigation pipes.

- b. Concrete
 - (1) Buildings and Structures
 - (a) Survey footprint of footings with shots at top of corners and at every direction and elevation change.
 - (b) Survey corner of walls after building completion.
 - (2) Bridges / Retaining walls
 - (a) Survey top corner of footings, top of walls, and abutments, and at elevation and direction changes.
 - (b) Identify geo-grid with text, hatch the area.
 - (3) Concrete ramps, loading docks, sidewalks, steps, patio areas, and structures
 - Survey at a frequency to adequately depict all items.
 - (4) Snowmelt
 - Survey limits and hatch the area. Take photographs of area.
 - (5) Columns
 - Survey center and extents of each column footing.
- c. Planimetrics
 - (1) Roads
 - Survey elevation and of edge of road, top face of curbing, pavement markings, etc.
 - (2) Landscaping
 - Survey planting beds, edge of tree line, etc.
 - (3) Final Grading
 - (a) Provide contours at 2 foot intervals.
 - (b) One foot interval contours will not be accepted.
- d. Abandoned Utilities
 - Survey cut offs note how “capped”

CHAPTER 3. AUTOCAD FORMAT STANDARD

§ 1. General

- a. All drawings are to meet the U.S. National CAD Standard Version 3.1
- b. Acceptable AutoCAD versions are between releases AutoCAD 2000 and AutoCAD 2012.
- c. Use of MPTN Base Mapping
 - (1) When MPTN images or base mapping is used by outside services, it shall be noted on drawing.
 - (2) The MPTN Tribal north arrow is the property of the MPTN Planning Department and shall not be used by outside parties.
 - (3) Information added to a MPTN base drawing shall be included on a new layer named with the prefix ‘asb’ added to the name of the appropriate standard layer described in §6b. The addition of the

prefix 'asb' to the layer will assist in determining what work was done by the vendor for the CAD files.

d. Questions regarding the standards for Survey drawing elements of the Record Drawings should be addressed to:

Mashantucket Pequot Tribe Planning Dept.,
Telephone: 860 312-2503

e. Questions regarding the standards for Survey drawing elements of the Record Drawings should be addressed to:

Foxwoods Engineering Dept.,
RT. 2, P. O. Box 3777
Mashantucket, CT 06339-3777

§ 2. Format for Information Compiled from Survey Drawings (Generally Exterior Site Work)

a. General

- (1) Drawings submitted shall abide by Connecticut State Statutes for "As-Built"
- (2) Drawing files shall not be rotated or translated so that the drawing coordinates differ from the field coordinates.
- (3) When practical, all lines shall be drafted as continuous polylines.
- (4) All ASCII points or hard shots shall be included in the AutoCad drawing.
- (5) ASCII points shall include descriptions as well as elevations.
- (6) Text indicating Utility Infrastructure, including drainage, shall be lower case
 - (a) Duct banks shall note width and depth
 - (b) Low voltage shall include description
 - (c) Manholes (round) shall indicated with diameter
 - (d) All Piping shall indicate diameter and type
 - (e) Valves, Hydrants, Blow offs, Corporations shall indicate size, type, material, etc.

b. Standard Layers and File Names Required for AutoCAD Drawings

- (1) All layering shall conform with the requirements of this paragraph utilizing the naming conventions listed in Appendix I, except that:
 - (a) Information added to a base drawing received from MPTN, shall be included on a new layer named with the prefix 'asb' added to the name of the appropriate standard layer.
 - (b) If a layers or items used are not listed within Appendix I, the Vendor may create a custom layer if there is not one already created for the item. When creating custom layers, the Vendor shall follow the format of standard layers.
- (2) Upon request, the Planning Department shall give the vendor a diskette with CAD script files. These script files contain all the layers listed in Appendix I, and can be dragged or dropped into a CAD drawing which will load the required layers instantly. Requests for this information should be directed to the Project Manager.
- (3) The following are layering requirements for specific items:
 - (a) Electric and Communications are to be on separate layers
 - (b) Gravity Sewer Pipe shall be on layers identified by size and type
 - (c) Gas Lines shall be on layers identified by size and type

- (d) Removed Utilities shall be identified “Removed” and moved to the “Removed” layer
- c. Externally Referenced Drawings
 - (1) Any External references (Xrefs) shall stay in original drawings, but a copy of each one shall be on submitted on the CD in a directory called Xrefs.
 - (2) This is to insure no information is lost during merging of files. Contractor shall also provide list of Xrefs for drawings with descriptions of referenced data.
- d. Miscellaneous Item Identification Requirements
 - (1) Couplings shall indicate bend radius
 - (2) Heat Tracing shall indicate type and size.
 - (3) Gravity Piping shall also indicate flow direction
 - (4) Gas Lines shall indicate size and type
 - (5) Meters and exterior gas related equipment shall indicate type, etc.
 - (6) Catch Basins shall indicate type (e.g. CL, C, double, etc)
 - (7) Sediment Control Structures shall indicate type and flow direction
 - (8) Geo-grid shall be indicated with text and by hatching
 - (9) Abandoned Utilities shall be indicated with text with cut offs and caps shown

§ 3. Format for Information Compiled from As-Built Drawings (Generally Interior Work)

- a. General

Drawing scales are to be limited to those defined on page UDS-04.12 of Reference A, with the addition of ‘3/32” = 1’-0” which is also acceptable.
- b. Standard Layers and File Names Required for AutoCAD Drawings
 - (1) Layer names are created in accordance with the AIA CAD Layer Guidelines contained in the Appendix II, Annex A, of this Title. Annex A provides a list of the Major Layer Groups that are to be used to create Record Drawings.
 - (2) If required, contactors may create custom layers provided they conform to the AIA CAD Layer Guidelines and that Major Groups are taken from the list in Annex A.
 - (3) All contractor created layers are to be identified by adding the initials of the company name as a suffix to the layer name. If the contractor identifies a need to add a Major Group definition, then they should contact Foxwoods Engineering at the address listed at the beginning of this document.
 - (4) These requirements will aid Foxwoods Engineering staff in distinguishing standard layers from custom layers and maintaining this document.
 - (5) Annex B, of Appendix II, lists the layers that have been created for gaming information. A drawing file containing all currently used layers, dim styles and text styles is available upon request or by downloading from MPTN Procurement’s (www.mptnprocurement.com) web site.
- c. File Naming and Sheet Numbering

Sheet file guidelines have been developed by the Uniform Drawing System (UDS) Task team of the Construction Specifications Institute (CSI). The following tables are provided for guidance only.

(1) Discipline Codes.

Discipline codes, including but not limited to the following, are used for sheet and model identification and for layer names.

| | | |
|---|--------------------------|-------------------------|
| A | Architectural | |
| | AE | Architectural Elements |
| | AF | Architectural Finishes |
| | AI | Architectural Interiors |
| C | Civil | |
| E | Electrical | |
| | EL | Electrical Lighting |
| | EP | Electrical Power |
| | EQ | Electrical Equipment |
| F | Fire Protection | |
| G | General | |
| H | Hazardous Material | |
| I | Interiors | |
| L | Landscape | |
| M | Mechanical | |
| | MH | Mechanical HVAC |
| | MP | Mechanical Piping |
| P | Plumbing | |
| Q | Equipment | |
| R | Resource | |
| S | Structural | |
| T | Telecommunications | |
| X | Other Disciplines | |
| Z | Contractor/Shop Drawings | |

(2) Sheet Type Designator

Sheet type designators are listed below. Note that sheet type 7 has been reserved for Reflected Ceiling Plans. The remainder of the codes are as described in Reference A.

| | |
|---|------------------------|
| 0 | General |
| 1 | Plans |
| 2 | Elevations |
| 3 | Sections |
| 4 | Large Scale Views |
| 5 | Details |
| 6 | Schedules and Diagrams |
| 7 | Reflected Ceiling Plan |
| 8 | User defined |
| 9 | 3D Representations |

(3) Sheet Sequence Numbers

- (a) Sheet numbers should be designated sequentially starting at “01” and continuing through “99”.
- (b) The following table contains examples of sheet numbers:

| | | |
|--------|-----|----------------------------------|
| AE7.01 | AE | Architectural Elements |
| | 7 | Reflected Ceiling Plan |
| | .01 | Sheet 01 |
| | | |
| AE1.01 | AE | Architectural Elements |
| | 1 | Plan |
| | .01 | Sheet 01 |
| | | |
| EL4.06 | EL | Electrical Lighting |
| | 4 | Large Scale View (Enlarged Plan) |
| | .06 | Sheet 06 |
| | | |
| MP1.25 | MP | Mechanical Piping |
| | 1 | Plan |
| | .25 | Sheet 25 |

- (c) Full instructions on naming model and sheet files and sheet numbering can be found in Reference A.
- d. Externally Referenced Drawings
 - (1) Any links to externally referenced drawings (Xrefs) shall be present in electronic drawings and a copy of each shall be submitted on the CD-ROMs in a Folder named “Xrefs”.
 - (2) Contractor shall also provide list of Xrefs for drawings with a brief description of information contained in each reference file. This will ensure no information is lost during merging of files.

Appendix I

Layer Naming Standard for Survey Drawings (exterior of building, site work etc.)

| LAYER NAME | COLOR | DESCRIPTION |
|---------------------|-------|-----------------------------------|
| 0 | 7 | AutoCAD standard layer |
| BOUNDARIES | | |
| Asc_boundary | 130 | Field shots |
| Boundary | 130 | Boundary Lines |
| Boundary_easement | 130 | Easements |
| Boundary_misc | 2 | Pins, Drill Holes, Monuments, etc |
| Boundary_project | 130 | Project Boundaries |
| Boundary_settlement | 192 | Settlement Boundary |
| Boundary_text | 2 | Boundary Text |
| Boundary_townlines | 210 | Town lines |
| LAYER NAME | COLOR | DESCRIPTION |
| Boundary_row | 130 | Right of Ways |
| Boundary_zoning | 12 | Zoning |
| BUILDINGS | | |
| Asc_bldg | 6 | Field shots |
| Bldg | 6 | Buildings |
| Bldg_asbuilted | 6 | As-Built Buildings |
| Bldg_column | 253 | Column Lines |
| Bldg_h2otank | 6 | Water tank |
| Bldg_misc | 2 | Misc. items |
| Bldg_text | 2 | Text |
| Bldg_trailer | 6 | Trailers |
| DETAILS | | |
| Detail | 7 | Detail lines |
| Detail_hatch | 254 | Hatching for details |
| Detail_text | 20 | Text for details |
| DIMENSIONING | | |
| Dim_lines | 20 | Arrows, lines, etc.(no leaders) |
| Dim_text | 20 | Dimension text |
| LANDSCAPING | | |
| Plani_brushl | 110 | Brush |
| Plani_groundcover | 2 | Ground covers |
| Plani_landscaping | 2 | Landscaping beds |
| Plani_tree | 110 | Single trees |
| Plani_treel | 110 | Treeline |
| Plani_vegetation | 110 | Vegetation |
| PLANIMETRICS | | |
| Asc_plani | 2 | Various shots |
| Asc_tree | 2 | Field shots of trees |
| Plani_arch_limit | 200 | Archaeological limits |
| Plani_Ballfield | 2 | Ballfield |
| Plani_benches | 2 | Benches |

| | | |
|---|-----|--|
| Plani_borings | 2 | Test pits, borings |
| Plani_bridge | 4 | Bridges |
| Plani_bulkhead | 2 | Bulkheads for buildings |
| Plani_cl | 95 | Centerline of road |
| Plani_cl_station | 2 | Centerline of road stationing |
| Plani_conc | 253 | Concrete slabs, footings etc. |
| Plani_conc_ab | 253 | Concrete slabs, footings etc. ,As-Builts |
| Plani_courts | 2 | Tennis, basketball courts |
| Plani_curb | 11 | Curbing |
| Plani_deck | 2 | Decks |
| Plani_digi_roads | 11 | Digitized Roads |
| Plani_dpark | 34 | Gravel Parking |
| Plani_drive | 21 | Driveways |
| Plani_droad | 34 | Gravel Roads |
| Plani_erosion | 2 | Erosion control |
| Plani_fence | 2 | Fences |
| LAYER NAME COLOR DESCRIPTION | | |
| Plani_fpole | 2 | Flagpoles |
| Plani_grail | 12 | Guard Rails |
| Plani_hatch | 2 | Hatching |
| Plani_misc | 2 | Misc, signs, benches, etc. |
| Plani_mbox | 2 | mail boxes |
| Plani_monorail_footing | 2 | Monorail Footings |
| Plani_pavemarking | 211 | Pavement markings |
| Plani_parking | 11 | Paved parking |
| Plani_Playground | 2 | Playgrounds |
| Plani_pool | 2 | Pools & spas |
| Plani_post | 2 | Posts |
| Plani_ramp | 2 | Ramps |
| Plani_retwall | 4 | Retaining walls |
| Plani_retwall_footing | 2 | Retaining wall footings |
| Plani_road | 11 | Roads |
| Plani_roads_As-Builts | 11 | Road As-Builts |
| Plani_rocks | 2 | Rocks |
| Plani_sidewalk | 31 | Sidewalks |
| Plani_steps | 2 | Steps |
| Plani_stwall | 65 | Stone walls |
| Plani_text | 2 | Text |
| Plani_trail | 51 | Trails |
| PROPOSED | | |
| Proposed | 1 | Proposed features/objects |
| Proposed_grading | 1 | Proposed Grading |
| Proposed_notes | 1 | Proposed Notes |
| Proposed_text | 1 | Proposed Text (leaders) |
| Proposed_utilities | 1 | Proposed utilities |
| SURVEY | | |
| Asc_survey | 230 | Boundary, etc |
| Asc_survey_ctrl | 230 | Control |

| | | |
|-----------------------|--------------|--|
| Asc_survey_stakeout | 230 | Stakeout |
| Survey_control | 230 | Control |
| Survey_info | 2 | Survey info, bearings, distances |
| Survey_misc | 2 | Pins, Drill Holes, Monuments, etc |
| Survey_notes | 40 | Notes for map |
| TITLE | | |
| Title | 153 | Title and text |
| Title_misc | 153 | Legends, notes, etc. |
| Title_nscale | 153 | North arrow and scale |
| TOPOGRAPHY | | |
| Topo_Cont_hgh | 22 | Index Contours |
| Topo_Cont_hgh_field | 22 | Field generated Contours |
| Topo_Cont_nml | 252 | Intermediate Contours |
| Topo_Cont_nml_field | 252 | Field generated Contours |
| Topo_Cont_text | 2 | Contour Text |
| Topo_spot_elev | 2 | Spot elevations |
| LAYER NAME | COLOR | DESCRIPTION |
| UTILITIES | | |
| Communications | | |
| Asc_com | 30 | Field shots of com. |
| asc_com_spare | 30 | Spare conduit |
| asc_conduit_rte2 | 30 | Rte 2 Conduit |
| u_com_abandoned | 30 | Abandoned in place lines |
| U_com_cable | 30 | Cable |
| U_com_cable_tv | 30 | Cable TV |
| U_com_camera_ab | 30 | Surveillance cameras |
| U_com_fiber_optic | 30 | Fiber Optic Lines |
| U_com_fire_alarm | 30 | Fire Alarm lines |
| U_com_hh | 30 | Communication hand hole |
| U_com_line | 30 | Communication line |
| U_com_mh | 30 | Communication manhole |
| U_com_security | 30 | Security Lines |
| U_com_structure | 30 | Structures |
| U_com_telephone | 30 | Telephone lines, etc |
| U_com_text | 30 | Communication text |
| Electric | | |
| asc_elec | 10 | Field shots of electric |
| U_elec_abandoned | 10 | Abandoned in Place lines |
| U_elec_box | 10 | Electric box |
| U_elec_com_combined | 10 | Electric and Communication Combined |
| U_elec_ductbank | 10 | Ductbank |
| U_elec_gen_ducts | 10 | Ducts for generator |
| U_elec_gen_pads | 10 | Pads for generator |
| U_elec_hh | 10 | Electric hand hole |
| U_elec_light_exterior | 10 | Exterior Lighting (not Lightpoles) |
| U_elec_line | 10 | Electric lines |
| U_elec_line_approx | 10 | Approximate location of electric lines |
| U_elec_line_overhead | 10 | Overhead electric Lines |

| | | |
|-------------------|--------------|----------------------------------|
| U_elec_loop_ab | 10 | Loops for guard shacks |
| U_elec_lp | 10 | Light poles |
| U_elec_meter | 10 | Electric meter |
| U_elec_mh | 10 | Electric manhole |
| U_elec_misc | 10 | Misc. lighting |
| U_elec_pole | 10 | Electric poles |
| U_elec_removed | 10 | Electric lines removed |
| U_elec_sleeve | 10 | Electric Sleeves |
| U_elec_structure | 10 | structures |
| U_elec_text | 10 | Electric text |
| U_elec_vault | 10 | Electric Vault |
| Gas | | |
| asc_gas | 50 | Field shots of gas |
| u_gas_.5in | 50 | ½ inch gas line |
| U_gas_.75in | 50 | ¾ inch gas line |
| U_gas_1.25in | 50 | 1.25 inch gas line |
| LAYER NAME | COLOR | DESCRIPTION |
| U_gas_1.5in | 50 | 1.5 inch gas line |
| U_gas_10in | 50 | 10 inch gas line |
| U_gas_12in | 50 | 12 inch gas line |
| U_gas_1in | 50 | 1 inch gas line |
| U_gas_2in | 50 | 2 inch gas line |
| U_gas_3in | 50 | 3 inch gas line |
| U_gas_4in | 50 | 4 inch gas line |
| U_gas_5in | 50 | 5 inch gas line |
| U_gas_6in | 50 | 6 inch gas line |
| U_gas_8in | 50 | 8 inch gas line |
| U_gas_off | 50 | Gas lines abandoned |
| U_gas_structure | 50 | structures |
| U_gas_text | 50 | Gas text |
| U_gas_valve | 50 | Gas valves |
| Sanitary | | |
| asc_sanit | 80 | Field shots of sanitary |
| asc_sanit_approx | 80 | Field shots of sanitary (approx) |
| U_san_2in | 80 | 2 inch Sanitary |
| U_san_3in | 80 | 3 inch Sanitary |
| U_san_4in | 80 | 4 inch Sanitary |
| U_san_6in | 80 | 6 inch Sanitary |
| U_san_8in | 80 | 8 inch Sanitary |
| U_san_10in | 80 | 10 inch Sanitary |
| U_san_12in | 80 | 12 inch Sanitary |
| U_san_14in | 80 | 14 inch Sanitary |
| U_san_15in | 80 | 15 inch Sanitary |
| U_san_16in | 80 | 16 inch Sanitary |
| U_san_18in | 80 | 18 inch Sanitary |
| U_san_20in | 80 | 20 inch Sanitary |
| U_san_24in | 80 | 24 inch Sanitary |
| U_san_30in | 80 | 30 inch Sanitary |

| | | |
|----------------------------|--------------|-------------------------|
| U_sanitary_approx | 80 | Sanitary approximate |
| U_san_fm | 80 | Force Main |
| U_san_fm_1.25 | 80 | 1.25in Force Main |
| U_san_fm_2.5in | 80 | 2.5in Force Main |
| U_san_fm_1in | 80 | 1in Force Main |
| U_san_fm_2in | 80 | 2in Force Main |
| U_san_fm_3in | 80 | 3in Force Main |
| U_san_fm_4in | 80 | 4in Force Main |
| U_san_fm_6in | 80 | 6in Force Main |
| U_san_fm_8in | 80 | 8in Force Main |
| U_sanitary_grease | 80 | Sanitary grease traps |
| U_sanitary_mh | 80 | Sanitary manholes |
| U_san_pipe_text | 80 | Sanitary Pipe Text Size |
| U_sanitary_pumps | 80 | Pump stations, grinders |
| U_sanitary_septic_field | 80 | Septic fields |
| U_sanitary_structure | 80 | structures |
| LAYER NAME | COLOR | DESCRIPTION |
| U_sanitary_text | 80 | Sanitary text |
| Storm | | |
| asc_storm | 80 | Field shots of storm |
| U_storm_2in | 80 | 2 in Storm water |
| U_storm_3in | 80 | 3 in Storm water |
| U_storm_4in | 80 | 4 in Storm water |
| U_storm_6in | 80 | 6 in Storm water |
| U_storm_8in | 80 | 8 in Storm water |
| U_storm_12in | 80 | 12 in Storm water |
| U_storm_15in | 80 | 15 in Storm water |
| U_storm_21in | 80 | 21 in Storm water |
| U_storm_24in | 80 | 24 in Storm water |
| U_storm_30in | 80 | 30 in Storm water |
| U_storm_36in | 80 | 36 in Storm water |
| U_storm_42in | 80 | 42 in Storm water |
| U_storm_48in | 80 | 48 in Storm water |
| U_storm_54in | 80 | 54 in Storm water |
| U_storm_cb | 80 | Catch basins |
| U_storm_culvert | 80 | Culverts |
| U_storm_footdrains | 81 | Footing drains |
| U_storm_mh | 80 | Drainage manholes |
| U_storm_roofdrains_4in | 80 | 4 in Roof Drains |
| U_storm_roofdrains_6in | 80 | 6 in Roof Drains |
| U_storm_roofdrains_8in | 80 | 8 in Roof Drains |
| U_storm_roofdrains_10in | 80 | 10 in Roof Drains |
| U_storm_roofdrains_12in | 80 | 12 in Roof Drains |
| U_storm_oil_h2o_sedchamber | 80 | Sedchambers |
| U_storm_riprap | 80 | Rip rap |
| U_storm_structure | 80 | Structures |
| U_storm_text | 80 | Storm water text |
| Water | | |

| | | |
|---------------------|--------------|-------------------------|
| asc_water | 160 | Field shots of water |
| U_water_firehyd | 160 | Fire hydrant |
| U_water_h2otank | 160 | Water tank |
| U_water_irrigation | 160 | Irrigation |
| U_water_.5in | 160 | ½ in Water lines |
| U_water_.75in | 160 | ¾ in Water lines |
| U_water_1in | 160 | 1 in Water lines |
| U_water_2in | 160 | 2 in Water lines |
| U_water_3in | 160 | 3 in Water lines |
| U_water_4in | 160 | 4 in Water lines |
| U_water_6in | 160 | 6 in Water lines |
| U_water_8in | 160 | 8 in Water lines |
| U_water_10in | 160 | 10 in Water lines |
| U_water_12in | 160 | 12 in Water lines |
| U_water_16in | 160 | 16 in Water lines |
| U_water_20in | 160 | 20 in Water lines |
| LAYER NAME | COLOR | DESCRIPTION |
| U_water_structure | 160 | Structures |
| U_water_text | 160 | Water text |
| U_water_valve | 160 | Water valves |
| U_water_wells | 160 | Water wells |
| Wetlands | | |
| Asc_wet | 140 | Field shots of wetlands |
| Wetland_buffer | 200 | Wetland buffer |
| Wetland_field | 140 | Field located wetlands |
| Wetland_fill | 143 | Filled wetland |
| Wetland_statebd | 140 | State boundary |
| Wetland_streams | 142 | Streams |
| Wetland_sym | 2 | Hatching |
| Wetland_text | 2 | Flags, text, etc. |
| Wetland_waterbodies | 5 | Lakes, ponds, etc |

Appendix II

Layer Naming Standard for As-Built Drawing

ANNEX A

Annex A: Major Group Layer Names

(Those Major Groups shown in *italics* are locally defined).

| Group | Description | Group | Description |
|-------------|------------------------------------|-------------|--|
| <i>ABAN</i> | <i>Abandoned in position</i> | CWTR | Chilled Water Systems |
| ACCS | Access Plan | DATA | Data Outlets |
| ACID | Acid Waste Systems | DECK | Structural Deck |
| AFFF | Aqueous Film-Forming Foam System | DETL | Detail |
| AFLD | Airfields | DFLD | Drain Fields |
| ALRM | Alarm | DIAG | Diagrams |
| ANNO | Annotation | DICT | Central Dictation System |
| AREA | Area | DOMW | Domestic Water Systems |
| AUXL | Auxiliary | DOOR | Doors |
| BEAM | Beams | DRIV | Driveways |
| BELL | Bell Systems | DTCH | Ditches Or Washes |
| BLDG | Building And Primary Structure | DUAL | Dual Temperature System |
| BLIN | Baseline | DUST | Dust And Fume Collection Systems |
| BNDY | Political Boundary | ELEC | Electrical System |
| BORE | Borings | ELEV | Elevation |
| BRAC | Bracing | ELHT | Electrical Heat |
| BRDG | Bridge | EMCS | Energy Monitored Control System |
| BRIN | Brine Systems | ENER | Energy Management Systems |
| BRKL | Break | EQPM | Equipment |
| BZNA | Buffer Zone Area | EROS | Erosion And Sediment Control |
| CABL | Cable Systems | ESMT | Easements |
| CASE | Casework | EVAC | Evacuation Plan |
| CATV | Cable TV | EXHS | Exhaust |
| CCTV | Closed-Circuit TV | FENC | Fences |
| CEME | Cemetery | FIRE | Fire Protection System, Fire Alarm, Fire Extinguishers |
| CHAN | Navigable Channels | FLHA | Flood Hazard Area |
| CHIM | Chimneys And Stacks | FLOR | Floors |
| CLNG | Ceiling | FNDN | Foundation |
| CLOK | Clock System | FNSH | Finishes |
| CMPA | Compressed / Processed Air Systems | FUEL | Fuel Gas Systems |
| CMPQ | Computer Equipment | FUME | Fume Hoods |
| CNDW | Condenser Water System | FURN | Furnishings |
| CO2S | Co2 System | GLAZ | Glazing |
| CODE | Code Compliance Plan | GLYC | Glycol Systems |
| COLS | Columns | GRID | Column Grid |
| COMM | Communication | GRND | Ground System |
| CONT | Controls And Instrumentation | <i>GRSW</i> | <i>Grease Waste</i> |
| CONV | Conveying Systems | HALN | Halon Systems |
| <i>CPLX</i> | <i>Complex Plans</i> | HOTW | Hot Water Heating Systems |
| CTRL | Control Points / Systems | HVAC | HVAC Systems |
| | | IGAS | Inert Gas |
| | | <i>INDC</i> | <i>Detail Elevation and Section Indicators</i> |
| | | INST | Instrumentation System |

| Group | Description | Group | Description |
|-------|------------------------------|-------------|---------------------------------|
| INTC | Intercom System | PWTR | Process Water System |
| IRRG | Irrigation | RAIL | Railroad |
| JNTS | Joints | RAIR | Relief Air Systems |
| JOIS | Joists | RCOV | Energy Recovery Systems |
| LEGN | Legend Of Symbols | REFG | Refrigeration Systems |
| LGAS | Laboratory Gas Systems | RIVR | River |
| LITE | Lighting | ROAD | Roads, Streets And Highways |
| LOCN | Limits Of Construction | ROOF | Roof |
| LTNG | Lightning Protection System | RRAP | Riprap |
| MACH | Machine Shop | RWAY | Rights Of Way |
| MAJQ | Major Equipment | SANR | Sanitary Drainage Systems |
| MINQ | Minor Equipment | SECT | Sections |
| MDGS | Medical Gas | SERT | Security |
| MILL | Millwork | SGHT | Sight Distance |
| MKUP | Make-Up-Air Systems | SITE | Site |
| MPIP | Miscellaneous Piping Systems | SLAB | Slab |
| NGAS | Natural Gas | <i>SLOT</i> | <i>Slot Machine</i> |
| NICN | Not In Contract Equipment | SMOK | Smoke Extraction Systems |
| NODE | Node | SOIL | Soils |
| NURS | Nurse Call System | SOUN | Sound / PA Systems |
| PAIR | Process Air System | SPCL | Special Systems |
| PCHM | Process Chemical System | SPCQ | Special Equipment |
| PDRN | Process Drains System | SPRN | Sprinkler System |
| PERC | PERC Testing | SSWR | Sanitary Sewer System |
| PEXH | Process Exhaust System | STEM | Steam System |
| PGAS | Process Gas System | STRM | Storm Drainage & Sewer Syst. |
| PGNG | Paging System | STRS | Stairs |
| PHON | Phone System | SURV | Survey |
| PIPE | Pipe | SWLK | Sidewalks |
| PLAN | Key Plan Floor plan | <i>TABL</i> | <i>Table Games</i> |
| PLNT | Plant And Landscape Material | TEST | Test Equipment |
| PLQD | Process Liquid System | TINN | Triangulation Irregular Network |
| POIL | Process Oil System | TOPO | Topography |
| POND | Ponds | TRAL | Trails And Paths |
| POWR | Power | TRUS | Trusses |
| PRKG | Parking Lots | TVAN | TV Antenna System |
| PROC | Process Systems | UNID | Unidentified |
| PROP | Property Boundary | <i>VWPT</i> | <i>Viewports</i> |
| PROT | Fire Protection System | WALL | Walls |
| PRTN | Partitions | WATR | Water Supply |
| PSLR | Process Slurry System | WETL | Wetlands |
| PVAC | Process Vacuum System | <i>XREF</i> | <i>External References</i> |
| PVMT | Pavement | | |

ANNEX B

Specific Layer Names For Gaming Areas

The following list includes but is not limited to layer names allocated to gaming layers.

| LayerName | Description |
|-----------------------|--|
| X-EQPM-ATM | Gaming: ATM Machines |
| X-EQPM-ATM-IDEN | Gaming: ATM Machines Identifiers |
| X-EQPM-BOTH | Gaming: Booths |
| X-EQPM-BOTH-IDEN | Gaming: Booth Identifiers |
| X-EQPM-COIN-LOCK | Gaming: Coin Lockers |
| X-EQPM-COIN-LOCK-IDEN | Gaming: Coin Locker Identifiers |
| X-EQPM-COIN-REDM | Gaming: Coin Redemption |
| X-EQPM-COIN-REDM-IDEN | Gaming: Coin Redemption Identifiers |
| X-EQPM-FIXD | Gaming: Equipment Fixed |
| X-EQPM-IDEN | Gaming: Equipment Identifiers |
| X-EQPM-TCKT | Gaming: Ticket Redemption |
| X-EQPM-TCKT-IDEN | Gaming: Ticket Redemption Identifiers |
| X-EQPM-WKSK | Gaming: Wampum Kiosks |
| X-EQPM-WKSK-IDEN | Gaming: Wampum Kiosk Identifiers |
| X-FURN | Gaming: Furnishings |
| X-FURN-CHAR | Gaming: Game Seats |
| X-FURN-IDEN | Gaming: Furnishings Identifiers |
| X-SLOT | Gaming: slot machines |
| X-SLOT-DOOR | Gaming: Slots Door |
| X-SLOT-HBOY | Gaming: Slots High Boy |
| X-SLOT-HBOY-IDEN | Gaming: Slots High Boy Identifiers |
| X-SLOT-SLTP | Gaming: Slots Slope Top |
| X-SLOT-SLTP-IDEN | Gaming: Slots slope Top Identifiers |
| X-SLOT-WDWK | Gaming: Slots Woodwork Millwork Cabinets |
| X-SLOT-ZONE | Gaming: Slots Zone |
| X-SLOT-ZONE-IDEN | Gaming: Slots zone Identifiers |
| X-TBLE | Gaming: Game Table |
| X-TBLE-3CDP | Gaming: Game Table |
| X-TBLE-ACDC | Gaming: Game Table Acey Deucy |
| X-TBLE-BACC | Gaming: Game Table Baccarat |
| X-TBLE-BJCK | Gaming: Game Table Black Jack |
| X-TBLE-CAWV | Gaming: Game Table Catch a Wave |
| X-TBLE-CBST | Gaming: Game Table Caribbean Stud |
| X-TBLE-CHLK | Gaming: Game Table Chuk Luk |
| X-TBLE-CRAP | Gaming: Game Table Craps |
| X-TBLE-CWAR | Gaming: Game Table Casino War |
| X-TBLE-DEAL | Gaming: People Dealers |
| X-TBLE-IDEN | Gaming: Game Table Identifiers |
| X-TBLE-LITR | Gaming: Game Table Let it Ride |
| X-TBLE-MIDI | Gaming: Game Table Midi Bac |
| X-TBLE-MINI | Gaming: Game Table Mini Bac |
| X-TBLE-MWHL | Gaming: Game Table Money Wheel |
| X-TBLE-PGPK | Gaming: Game Table Pai Gow Poker |
| X-TBLE-PGTL | Gaming: Game Table Pai Gow Tiles |
| X-TBLE-PITS-STND | Gaming: Pit People Standing |
| X-TBLE-PLYR | Gaming: People - Players |
| X-TBLE-POKR | Gaming: Game Table Poker |
| X-TBLE-ROUL | Gaming: Game Table Roulette |
| X-TBLE-SICB | Gaming: Game Table Sic Bo |
| X-TBLE-SP21 | Gaming: Game Table Spanish 21 |
| X-TBLE-WAR | Gaming: Game Table War |

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History

| <u>Revision</u> | <u>Authorizing Actions</u> | <u>Description</u> |
|-----------------|----------------------------|--|
| 08-Dec-14 | TCR121114-03 of 10 | Approved Salon Regulations (and other actions) |
| 24-Oct-16 | TCR092216-01 of 06 | Amended Licensing Requirements |
| 05-Dec-18 | | Corrected reference typo at Ch.4 §1 a (5) |

TITLE 11. SALONS

CHAPTER 1. GENERAL PROVISIONS

§ 1. Purpose and Scope

- a. The purpose of this title is to establish the minimum necessary requirements for the operation of Salons to safeguard public health, safety and welfare.
- b. The provisions of this title shall apply to the construction, alteration, and operation of any Salon and to those practicing Salon Activities within Mashantucket.

§ 2. Applicability

- a. At all times, Salons and persons practicing Salon Activities, shall do so in strict compliance with the requirements of this title.
- b. The Mashantucket Pequot Tribal Nation (MPTN) Land Use Commission (Commission) shall not issue a permit for the construction or alteration of a Salon unless such activity meets the minimum requirements specified within this title.
- c. No Salon shall operate without a valid Certificate of Compliance issued by the Sanitarian.
- d. No person shall practice any Salon Activity which requires licensure unless he or she:
 - (1) holds a valid license, approved by the Sanitarian, issued for that specific activity; and either,
 - (2) conducts the activity within a Salon issued a valid Certificate of Compliance by the Sanitarian; or
 - (3) conducts the activity as part of an Event which has been issued a Temporary Certificate of Compliance by the Sanitarian.

§ 3. Authority

- a. Title 14 of the Mashantucket Pequot Tribal Laws (14 M.P.T.L.) establishes a Land Use Commission as an omnibus permitting body for regulation and oversight of Land Use Activities within Mashantucket.
 - (1) 14 M.P.T.L. ch. 2(b)(18) defines Land Use Activity to mean any construction or other activity which materially changes the use, appearance, or occupancy of land or a Facility, or the intensity of use of land or a Facility.
 - (2) 14 M.P.T.L. ch. 4(a) gives the Commission the authority to promulgate and adopt Land Use Regulations.
- b. Tribal Council Resolution, TCR092514-12 of 15, specifically directed the Non-Gaming Regulatory Department to develop regulations related to activities typical of a tattoo parlor.
- c. Pursuant to 14 M.P.T.L. ch.2(b)(18)(vi), which specifies that a Land Use Activity is any activity which is specifically designated as a Land Use Activity within a Land Use Regulation, the operation of a Salon and the practice of a Salon Activity are hereby specifically designated as Land Use Activities.

§ 4. Administration**a. Sanitarian**

- (1) The Sanitarian shall be the person primarily responsible for administering and enforcing compliance with this title.
- (2) For the purposes of this title, Sanitarian shall mean the highest ranking qualified individual, within the Mashantucket Pequot Tribal government responsible for non-gaming regulatory affairs, who also serves on the Land Use Commission representing the discipline of Food Safety and Sanitation.

b. Inspectors

The Sanitarian, from time to time, may employ or contract inspectors, plan examiners, or other technical contractors to assist in the performance of the duties established in this title. Such individuals shall have powers as delegated by the Sanitarian or the MPTN Regulatory Affairs Officer.

§ 5. Definitions

a. For the purposes of this title all terms, unless otherwise indicated or required by context, shall have the meaning defined within this section. Use of the singular shall also include the plural.

b. Definitions

- (1) “Aftercare” means written instructions given to the client, specific to the Body Art Procedure(s) rendered, about caring for the Body Art and surrounding area, including information about when to seek medical treatment, if necessary.
- (2) “Autoclave” means an apparatus for Sterilization utilizing steam pressure at a specific temperature over a period of time.
- (3) “Barbering” means the following described practices when performed upon the head, face, scalp, or neck for cosmetic purposes only:
 - (a) shaving or trimming of the beard;
 - (b) cutting of the hair;
 - (c) styling of hairpieces or wigs;
 - (d) singeing, shampooing, dyeing, coloring or styling of the hair;
 - (e) facials and scalp massages; and,
 - (f) application of cosmetic preparations, hair tonics, antiseptics, powders, oils, creams, or lotions or other preparations, either by hand or mechanical appliances.
- (4) “Body Art” or “Body Art Procedure” means the practice of body adornment including, but not limited to, the following techniques: Body Piercing, Tattooing, cosmetic tattooing, permanent make up, Branding, and Scarification.
- (5) “Body Piercing” means puncturing or penetrating the skin of a client with Single Use needles and the insertion of Jewelry or other adornment into the opening. This definition excludes piercing of the ear.
- (6) “Branding” means, inducing a pattern of scar tissue by use of a heated material to the skin, making a serious burn, which eventually becomes a scar.
- (7) “Commission” or “Land Use Commission” means the body established within 14 M.P.T.L. Ch. 3, §1, charged with carrying out all tasks related to the regulation of Land Use Activity within Mashantucket.

- (8) “Cosmetology” means the following described practices performed upon the head, face, scalp, arms, hands, body, legs and feet for cosmetic purposes only:
 - (a) treating the scalp, face, neck and arms by massaging, cleansing, exercising, stimulating or manipulating, with hands, mechanical appliances, or water;
 - (b) application of cosmetics, preparations, antiseptics, tonics, lotions, creams, powders, oils, clays, sprays, or any product pertaining to the skin;
 - (c) manicuring fingernails of the hand and, for cosmetic purposes only, trimming, filing and painting the healthy toenails of the feet, excluding cutting nail beds, corns, calluses, or other medical treatment involving the foot or ankle; and
 - (d) elimination of hair or destruction of hair follicles (e.g. by manual, mechanical or chemical means).
- (9) “Critical Violations” means one (1) or more of the following findings:
 - (a) use of non-Single Use instruments and equipment:
 - (i) without a properly functioning Autoclave;
 - (ii) lack of a monthly spore test properly recorded; or
 - (iii) non-disposable instruments and equipment improperly Sterilized or stored;
 - (b) reuse of Single Use materials;
 - (c) improper waste disposal methods;
 - (d) improper scrub technique before and after a procedure;
 - (e) improper glove technique during a procedure; or,
 - (f) no hepatitis vaccination program in place.
- (10) “Decontamination” means the use of chemical or physical means to remove pathogens on a surface so that the surface is incapable of transmitting infectious materials.
- (11) “Disinfectant” means a product registered as a disinfectant by the U.S. Environmental Protection Agency (EPA).
- (12) “Disinfection” means the destruction of disease-causing microorganisms on inanimate objects or surfaces, thereby rendering these objects safe for use or handling.
- (13) “Ear Piercing” means piercing of the lobe and/or outer perimeter of the ear, excluding the tragus, when performed with a mechanical device which utilizes pre-Sterilized earrings in a single-unit, Single Use cartridge system or is a disposable device.
- (14) “Easily Cleanable” means that surfaces are readily accessible and so fabricated that residue may be removed by simple cleaning methods.
- (15) “Event” means a public demonstration, a fund-raising affair, or a public convention involving one (1) or more Salon Activities.
- (16) “Event Manager” means the on-site person ultimately responsible for the conduct of all Event activities and vendors.
- (17) “Exposure Incident” means a person’s direct contact with human blood, human fluids, or other potentially infectious materials.
- (18) “Hairdressing” means the following described practices performed upon the head, face, scalp, arms, hands, body, legs and feet for cosmetic purposes only: dressing, arranging, curling, waving, weaving, cutting, singeing, relaxing/straightening, bleaching, and coloring hair.
- (19) “Imminent Health Hazard” means, but is not limited to, any one of the following:
 - (a) an ongoing outbreak of an infectious, pathogenic, or toxic agent capable of being transmitted to consumers;
 - (b) the absence of potable water, supplied under pressure, in a quantity which, in the opinion of the Sanitarian, is capable of meeting the needs of the facility;

- (c) a sewage backup into the facility; or
 - (d) any Critical Violation within a Salon practicing Body Art.
- (20) “Jewelry” means any personal ornament that has been properly Sterilized prior to use and that is to be inserted into a newly pierced area. Jewelry used in Body Art Procedures shall be made of any of the following materials: surgical-implant grade stainless steel; solid 14k or 18k white or yellow gold; niobium; titanium; platinum; or a dense, low porosity surgical grade plastic capable of being Autoclave-Sterilized without compromising the original characteristics of the plastic. All Jewelry shall be free of nicks, scratches, or irregular surfaces.
- (21) “Massage Therapy” means the systematic and scientific manipulation and treatment of the soft tissues of the body, by use of pressure, friction, stroking, percussion, kneading, vibration by manual or mechanical means, range of motion and non-specific stretching.
- (a) Massage Therapy includes shiatsu, deep tissue massage, acupressure, Thai yoga massage and Thai yoga.
 - (b) Massage Therapy may include the use of oil, ice, hot and cold packs or stones, tub, shower, steam, dry heat, or cabinet baths, for the purpose of, but not limited to, maintaining good health and establishing and maintaining good physical and mental condition.
 - (c) Massage Therapy does not encompass diagnosis, the prescribing of drugs or medicines, spinal or other joint manipulations, nor any service or procedure for which a license to practice medicine, chiropractic, naturopathy, physical therapy, or podiatry is required by law.
- (22) “Owner” means any person who owns, leases, operates, or controls a Salon located within Mashantucket.
- (23) “Operator” means the on-site manager of the Salon who is directly responsible for the day-to-day performance of persons employed by the Owner.
- (24) “Salon” means any place or premise where Salon Activities are practiced for commercial purposes.
- (25) “Salon Activity” means, for commercial purposes, any of the following:
- (a) Barbering;
 - (b) Hairdressing;
 - (c) Cosmetology;
 - (d) Massage Therapy;
 - (e) Tattooing; or
 - (f) Body Piercing.
- (26) “Salon Technician” or “Technician” means any person practicing Salon Activities.
- (27) “Sanitarian” means the person defined in ch. 1, §4(a) of this title.
- (28) “Sanitary” means clean and free of infectious or disease-causing agents.
- (29) “Scarification” means the use of Body Art Procedures, intentional destruction of the skin, or any other technique that changes the contour, or level plane of the skin and results in a scar on the skin.
- (30) “Sharps” means any objects which can penetrate the skin, including, but not limited to, needles, razor blades, scalpels, and broken glass or capillary tubes.
- (31) “Sharps Container” means a rigid, leak and puncture resistant container, designed primarily to contain Sharps, clearly labeled with the phrase “biological hazard” and the international biological hazard symbol.
- (32) “Single Use” means a disposable item used one (1) time on one (1) client.

- (33) “Sterilize” means an approved microbial process which applies enough heat or concentration of chemicals to a surface for a sufficient period of time to eliminate the microbial count, including highly-resistant bacterial endospores.
- (34) “Sterilization” shall mean the destruction of all living organisms around and in an object.
- (35) “Tattooing” means any method of placing ink or other pigment into or under the skin or mucosa by the aid of needles or any other instruments used to puncture the skin, resulting in permanent coloration of the skin or mucosa. This term includes all forms of cosmetic tattooing.
- (36) “Ultrasonic Cleaner” means a device physically large enough to fully submerge instruments in liquid, which removes all foreign matter from the instruments by means of high frequency oscillations transmitted through the contained liquid.
- (37) “Universal Precautions” is an approach to infection control to treat all human blood and certain human body fluids as if they were known to be infectious for Human Immune-deficiency Virus (HIV), Hepatitis B Virus (HBV) and other bloodborne pathogens. These are guidelines and controls published by the Centers for Disease Control and Prevention (CDC).
- (38) “Work Area” means a separate room with more than one Work Station, or a private room set aside to serve one customer at a time
- (39) “Work Station” means a chair, countertop and floor space set aside for the purpose of serving a customer, including floor space for the Technician to stand while serving the customer.

CHAPTER 2. CONSTRUCTION OR MODIFICATION

§ 1. Land Use Permit

Any person seeking to construct a new, or make alterations to an existing, Salon shall submit a permit application to the Land Use Commission and proceed in accordance with the process and procedures specified within the Land Use Law (14 M.P.T.L.).

§ 2. Plan Review

In addition to the application requirements specified within the Land Use Law, applicants proposing to construct or alter a Salon shall:

- (1) submit properly prepared plans, drawn to a scale of not less than ¼”=1’, and specifications for such construction, remodeling or alteration. Plans shall indicate the proposed layout including sinks, counters and storage areas, fixtures, toilet facilities, waiting area and the type and model of proposed fixed equipment and facilities.
- (2) the Sanitarian shall review the plans and specifications for compliance with this title and any other applicable laws and regulations.

§ 3. Pre-Operational Inspection

The Sanitarian shall conduct a pre-operational inspection to determine compliance with the approved plans and specifications and with the requirements of this regulation and other applicable laws and regulations.

- (1) The Land Use Commission shall not consider issuing a Certificate of Completion prior to inspection by the Sanitarian to determine compliance with the approved plans and specifications.

- (2) The Sanitarian shall not issue a Certificate of Compliance, and no Salon Activities shall be practiced, prior to a satisfactory pre-operations inspection.

CHAPTER 3. CERTIFICATE OF COMPLIANCE

§ 1. Certificate Required

No person shall practice a Salon Activity unless doing so within a Salon or at an Event which has been issued a Certificate of Compliance or Temporary Certificate of Compliance by the Sanitarian for that activity.

- (1) Certificates issued for a Salon shall identify all Salon Activities authorized to take place within the Salon and may be granted for a period not to exceed one (1) calendar year.
- (2) Temporary Certificates issued for an Event shall identify all Salon Activities authorized to take place at an Event and may be granted for a period not to exceed fourteen (14) calendar days.

§ 2. Registration

a. Initial Salon Registration

- (1) The Owner or Operator must submit a registration to the Sanitarian at least thirty (30) calendar days prior to the proposed opening of the Salon.
- (2) Registrations shall be submitted on the appropriate registration form furnished by the Sanitarian. At minimum the form shall contain:
 - (a) the name and physical address of the Salon;
 - (b) the name, address and contact information for the Owner and, if different, the Operator of the Salon;
 - (c) a list of all services to be offered, including but not limited to, Salon Activities for which the Certificate is being sought;
 - (d) the following information for each Salon Technician who will practice Salon Activities which require licensure:
 - (i) personal and work contact information;
 - (ii) copy of Technician's license;
 - (iii) copy of driver's license or valid state photo ID; and,
 - (iv) for each Technician practicing Body Art, a copy of first aid and bloodborne pathogen training records.
 - (e) a signed statement by the Owner and, if different, the Operator, certifying that, at all times, the Salon will be operated in compliance with this title and any other applicable laws and regulations; and,
 - (f) any information specifically required for the type of Salon Activities proposed or other pertinent information otherwise required by the Sanitarian.
- (3) The registration shall not be deemed to have been submitted until payment of the \$100 registration fee is received.

b. Registration Revisions

- (1) The Owner/Operator of a Salon shall submit a revised registration whenever any information provided on a previous registration has changed.

- (2) Registration revisions must be submitted within thirty (30) calendar days of the change which necessitated the revision.
- (3) There shall be no fee associated with registration revisions.
- (4) Failure to revise a Salon's registration within the time period specified may result in enforcement action including the suspension or revocation of the Salon's Certificate of Compliance.

c. Registrations for Events Involving Salon Activities

- (1) The Event Manager must submit a registration to the Sanitarian at least thirty (30) calendar days prior to the scheduled start date of an Event involving Salon Activities.
- (2) Registrations shall be submitted on the appropriate registration form furnished by the Sanitarian. At minimum the form shall contain:
 - (a) the name and location of the Event;
 - (b) the name, address and contact information for the Event organizer and, if different, the Event Manager;
 - (c) a list of all services to be offered, including but not limited to, Salon Activities for which the Certificate is being sought;
 - (d) the business name, address and contact information for each participating vendor;
 - (e) each vendor, must provide the following information at least fourteen (14) days prior to the Event for each Salon Technician who will practice Salon Activities which require licensure:
 - (i) personal and work contact information;
 - (ii) copy of driver's license or valid state photo ID; and
 - (iii) Proof that the individual:
 - a. is eighteen years of age or older;
 - b. has successfully completed, within the past three years, training in bloodborne pathogens per OSHA standards (29 CFR 1910.1030);
 - c. holds current certification by the American Red Cross or the American Heart Association in basic first aid; and
 - d. holds a valid license from a state or other licensing authority to practice tattooing; OR
 - e. has been tattooing in a tattoo studio full time for at least one (1) year under the personal supervision and instruction of a tattoo technician.
 - (f) a signed statement by the Event organizer and, if applicable, the Event Manager, certifying that at all times the Event will be operated in compliance with this title and any other applicable laws and regulations;
 - (g) a properly prepared plan, drawn to a scale of not less than 1/4":1', depicting the proposed Event layout and arrangement of Work Areas, sinks, counters and storage areas, fixtures, nearest toilet facilities, and waiting area; and,
 - (h) any information specifically required for the type of Salon Activities proposed or other pertinent information otherwise required by the Sanitarian.
- (3) Registration Fee for Events
 - (a) The registration fee for each Event shall be Event specific and set at the amount necessary to cover all expenses required for the employment of Event-specific temporary inspectors, if any, plus \$250.
 - (b) The registration shall not be deemed to have been submitted until payment of the registration fee is received.

d. Annual Registrations

- (1) Registrations to renew a Certificate of Compliance must be updated annually.
- (2) Annual registrations shall be submitted on the appropriate form furnished by the Sanitarian at least thirty (30) calendar days prior to the expiration date of the current Certificate and include payment of the \$100 registration fee.
- (3) Failure to submit an annual registration, as described in this section, may result in immediate revocation of the Salon's Certificate of Compliance.

§ 3. Certificate Issuance

a. A Certificate of Compliance shall not be issued or renewed unless:

- (1) a complete and valid registration has been submitted in a timely manner; and,
- (2) the Salon or Event has demonstrated, through satisfactory inspection by the Sanitarian, compliance with this title and all other applicable laws and regulations.

b. A Certificate of Compliance shall be valid for one (1) calendar year after issuance; except that:

- (1) certificates are not transferable from person to person and shall become invalid upon change of ownership;
- (2) certificates are valid only for the location the Salon occupied when the Certificate was issued and shall become invalid upon relocation or closure;
- (3) certificates are issued based on the Salon Activities and Work Station layout as depicted within the registration documents reviewed by the Sanitarian. Significant changes, not previously approved by the Sanitarian, shall void the issued Certificate.
- (4) the Certificate has been revoked or suspended, pursuant to Chapter 6, by the Sanitarian.

c. A Temporary Certificate of Compliance shall be valid for the time period specified, not to exceed fourteen (14) calendar days, unless otherwise suspended or revoked by the Sanitarian.

CHAPTER 4. RIGHT TO PRACTICE SALON ACTIVITIES

§ 1. License Required

a. Tattooing

- (1) To practice Tattooing in Mashantucket, an individual must obtain a Mashantucket license from the Sanitarian.
- (2) To be licensed in Mashantucket to practice Tattooing, an individual must submit to the Sanitarian:
 - (a) A \$30 fee, made payable to MPTN; and
 - (b) Proof that the individual:
 - (i) is eighteen years of age or older;
 - (ii) has successfully completed, within the past three years, training in bloodborne pathogens per OSHA standards (29 CFR 1910.1030);
 - (iii) holds current certification by the American Red Cross or the American Heart Association in basic first aid; and
 - (iv) holds a valid license from a state or other licensing authority to practice tattooing; or

- (v) has been tattooing in a tattoo studio full time for at least one (1) year under the personal supervision and instruction of a tattoo technician.
 - (3) A Mashantucket Tattoo license is valid for one (1) year from the date of issuance.
 - (4) An individual may renew his or her Mashantucket license by submitting:
 - (a) a \$20 renewal fee, made payable to MPTN, to the Sanitarian; and
 - (b) proof to the Sanitarian that he or she:
 - (i) has successfully completed, within the past three years, training in bloodborne pathogens per OSHA standards (29 CFR 1910.1030); and
 - (ii) holds current certification by the American Red Cross or the American Heart Association in basic first aid.
 - (5) A tattoo apprentice who does not meet the experience requirement specified in paragraph (2)(c)(v), and therefore cannot be licensed, may practice tattooing under the direct supervision of a licensed tattooist for a period of one year provided that the apprentice satisfies the requirements specified in (2)(b)(i)-(iii).
- b. Other Salon Activities
- (1) To practice in Mashantucket, any Salon Activity, other than Tattooing, requiring licensure in Connecticut, a Salon Technician must obtain a license from the Sanitarian to perform such activity.
 - (2) To obtain a Mashantucket license, an individual must submit to the Sanitarian:
 - (a) a current Connecticut license ; or
 - (b) a current license issued by another jurisdiction whose standards of licensure are deemed by the Sanitarian to substantially meet the minimum criteria used by Connecticut.
- c. A Salon Technician's right to practice any Salon Activity within Mashantucket may be revoked for causes specified within ch. 6, §1(b)(2) by the Sanitarian.

§ 2. Owner or Event Organizer Responsibility

- a. It shall be the responsibility of the Salon Owner, or Event Manager, to ensure that each Salon Technician, practicing a Salon Activity which requires licensure, hold a valid license.
- b. If the Sanitarian finds that a Salon Technician has practiced a Salon Activity which requires licensure while not holding a valid license, the Sanitarian may take Enforcement Action up to and including suspension or revocation of the Certificate of Compliance for the Salon or Event.
- c. The Owner, Operator, and/or Event Manager shall be responsible for ensuring that the Salon or Event is run in a manner that is safe for the Salon Technicians and the general public.

CHAPTER 5. INSPECTIONS

§ 1. Inspection

- a. Each Salon shall be inspected a minimum of twice a year by the Sanitarian.
- b. The Sanitarian may conduct as many additional inspections as are necessary for the enforcement of this title.
- c. All written records relevant to compliance with this title shall be made available to the inspector upon request.

§ 2. Inspection Reports

- a. The Sanitarian shall record inspection observations on forms developed for that purpose.
- b. A copy of the Sanitarian's inspection forms and/or follow-up inspection report shall be furnished to the Operator of the Salon.
- c. All deficiencies, including the specific nature of violations noted, shall be clearly identified along with a reasonable period of time to correct each deficiency.
- d. All deficiencies noted must be abated within the time period specified on the inspection report.

§ 3. Compliance Notice

- a. In the event that the Sanitarian finds unsanitary conditions in a Salon, or Event, or if a violation or set of violations appears on more than one (1) consecutive inspection report, the Sanitarian shall immediately issue a written compliance notice to the Owner or Operator, or Event Manager, citing such conditions, specifying the corrective action to be taken, and a time frame within which action shall be taken. If correction is not made in the allotted time, the Sanitarian shall commence Enforcement Action, pursuant to Chapter 6.
- b. Compliance Notices may include the imposition of fines not to exceed \$500 for each offense.

CHAPTER 6. ENFORCEMENT**§ 1. Enforcement Authority**

- a. The Land Use Commission shall have the authority to enforce compliance with this title pursuant to the procedures established in this title and within 14 M.P.T.L. ch 9.
- b. The Sanitarian may, without warning, prior notice, or hearing:
 - (1) suspend a Certificate of Compliance to operate a Salon, or a Temporary Certificate of Compliance issued for an Event:
 - (a) if the operation constitutes an Imminent Health Hazard to the public;
 - (b) if the Owner, Operator or Event Manager allows a Salon Technician, who does not hold a valid license, to continue practicing Salon Activities requiring such license; or,
 - (c) if the Owner, Operator or Event Manager has interfered with an inspection conducted by the Sanitarian.
 - (2) revoke the Salon Technician's right to practice within Mashantucket:
 - (a) if the Sanitarian directly observes or receives multiple reports of incompetence;
 - (b) if the Sanitarian observes or receives multiple reports of the Salon Technician practicing Salon Activities while suspected of being under the influence of drugs or alcohol; or,
 - (c) if the Sanitarian determines that the Salon Technician has violated any provision of this title.
- c. The Sanitarian shall further have the authority, at reasonable times, to enter any premises where it is suspected that Salon Activities are occurring to inspect or to perform the duties imposed by this title.
 - (a) If the premises are occupied, the Sanitarian must present her credentials and request entry.
 - (b) If such premises are unoccupied, the Sanitarian shall first make a reasonable effort to locate the Owner or Operator and request entry.

- (c) If entry is refused, the Sanitarian shall have recourse to the remedies provided by law to secure entry.

§ 2. Enforcement Procedure

a. Failure to comply with the provisions of this regulation or any other applicable law, regulation or code shall be grounds for the Commission to take enforcement action, pursuant to 14 M.P.T.L. ch. 9, including the suspension or revocation of a Salon's Certificate or revocation of a Salon Technician's right to practice within Mashantucket.

b. When, pursuant to §1(c) of this chapter, a Certificate of Compliance has been suspended, or Salon Technician's right to practice within Mashantucket has been revoked, the Sanitarian shall provide written notice to the Owner, or Salon Technician, and copy the Operator or Event Manager.

- (1) The notice shall include:
 - (a) a detailed description of the reason that such action is being taken, including specific reference to the provisions of this title or other applicable law, regulation or code.
 - (b) an explanation of the Owner's, Operator's, or Salon Technician's opportunity for a hearing pursuant to 14 M.P.T.L. ch. 10.
 - (c) identification of any abatement procedures which must occur prior to the Certificate being reinstated or the license re-validated.
- (2) The notice shall be deemed properly served when it is hand delivered to Owner/Operator or Event Manager and, if applicable, the Salon Technician. It shall also be acceptable, if efforts to hand deliver the notice have failed, to serve such notice by registered or certified mail, return receipt requested, to the last known address of the Owner, Operator, Event Manager, or Salon Technician.
- (3) Such suspension or invalidation shall be effective immediately upon delivery of the written notice to the Owner/Operator, or Event Manager, and, if applicable, the Salon Technician, by the Sanitarian. The Sanitarian shall remove the suspended Certificate of Compliance from the premises.
 - (a) when a Certificate of Compliance is suspended, all operations shall cease immediately and shall not resume until written approval has been issued by the Sanitarian.
 - (b) when a Salon Technician's right to practice within Mashantucket has been revoked, the Owner/Operator or Event Manager shall ensure that the Salon Technician immediately ceases practicing Salon Activities requiring licensure.
 - (c) any person subject to an enforcement action pursuant to this paragraph may make a written request, within ten (10) days following receipt of the notice of action, for reinstatement of the Certificate or license by providing a signed statement that, in their opinion, the conditions warranting the suspension or invalidation were not present or have been corrected.
 - (i) The Sanitarian shall undertake a re-inspection and/or an investigation into the validity of the statement.
 - (ii) If the Sanitarian determines that the Salon or Salon Technician is in compliance with the requirements of this regulation and all other applicable laws, regulations and codes, the Certificate or license shall be reinstated.

c. At any time during the process, an enforcement action taken pursuant to this title, may be suspended by the Sanitarian if the reasons for initiating such action no longer exist.

§ 3. Right to a Hearing

Any Owner, Operator, Event Manager or Salon Technician subject to an enforcement action, pursuant to this title, may request a hearing with the Commission by following the procedures specified within 14 M.P.T.L. Ch. 10.

CHAPTER 7. GENERAL SALON STANDARDS AND REQUIREMENTS**§ 1. Equipment and Facilities****a. Water Supply**

- (1) An adequate supply of hot and cold running water, at proper temperatures, from a municipal or approved private source shall be provided for customers, cleanliness of employees, and for washing floors, walls, ceiling and equipment.
- (2) Hot water at any faucet must be at least 100°F and shall not exceed 115°F.

b. Waste Disposal

- (1) Wastewater from all plumbing fixtures shall be discharged into the MPTN sewer system. Unused or expired products must be disposed of properly and shall not be discharged to the sewer system.
- (2) Refuse - Easily Cleanable receptacles shall be provided.
 - (a) Containers must be emptied regularly and not allowed to over fill.
 - (b) Chemically soiled towels and linens shall be stored in fire-retardant containers.

c. Plumbing Fixtures

- (1) At least one (1) hand-washing facility, equipped with a soap dispenser and disposable towels, shall be located in each work area in order to provide for proper hand washing by Salon Technicians before and after each customer.
- (2) Plumbing fixtures shall be of impervious material and of a type which are Easily Cleanable. They shall be free from cracks and from parts which are not readily accessible for cleaning. They shall be of a type which does not constitute a hazard to a public water supply through back siphoning, or cross-connection.
- (3) Except when the establishment has been operating by the same Owner and constructed or altered prior to the effective date of this regulation:
 - (a) a utility sink shall be provided for proper cleaning of surfaces and equipment, and
 - (b) a mop sink must be provided for cleaning the facility.

d. Floors

- (1) Floors must be constructed of a smooth, impervious, washable surface, light in color. Floors and walls shall be maintained in a Sanitary manner and in good repair. Carpeting is not allowed within Work Areas.
- (2) If carpeting, or similar material, is used within separate administrative areas or waiting areas it shall be of a light color, made of a single loop pile of not more than one-fourth (1/4) inch in height. Such floor covering shall be kept clean by vacuuming at least daily and shampooing at least once annually and more frequently if the covering is not clean.

e. Lighting

Lighting fixtures shall be in sufficient number and properly placed so as to provide adequate illumination.

f. Ventilation

The shop shall be properly and adequately ventilated so as to remove excess heat and odors.

g. Cabinets

Cabinets shall be provided for storage of clean linen, towels, blankets, and gowns. They shall have tight-fitting doors that shall be kept closed to protect the linen, towels, blankets and gowns from dust and dirt.

h. Toilet Facilities

- (1) Adequate and conveniently located toilet facilities and hand-washing facilities must be provided for customers and employees. Such facilities and washbasins shall be kept clean and in working order.
- (2) The hand-washing sinks shall be provided with hot and cold running water, a liquid soap dispenser and Single Use towels.
- (3) A separate covered Sanitary receptacle shall be provided in each facility to be utilized by female patrons.

i. Work Stations

- (1) Work chairs, benches, or tables shall be provided for each Salon Technician. Surfaces of the chairs, benches or tables shall be constructed of material that is smooth, non-absorbent, and Easily Cleanable.
- (2) Easily Cleanable waste receptacles shall be provided in close proximity of each individual Work Station.

§ 2. Facility Sanitation

a. The Owner/Operator of a Salon shall keep it in a clean and Sanitary condition at all times.

b. Floors and walls will be maintained in a Sanitary manner at all times. Ceiling shall be kept in good repair, and cracks in walls, especially around baseboards, shall be filled in so as to prevent the harboring and breeding of insects.

c. Cabinets, shelves, furniture, sinks and fixtures shall be kept clean and free of dust, dirt and hair clippings.

d. Unless Single Use barrier film is used, the arms, seats and rests of chairs shall be Disinfected after serving each customer.

e. No live animals shall be allowed in a Salon, except that:

- (1) service animals assisting an individual with a disability shall be allowed; and,
- (2) fish in an aquarium located in a separate waiting area are permitted.

f. All containers are to be labeled as to their contents. All hazardous compounds (e.g. poisonous or toxic) and cleaning agents must be stored safely.

g. Restroom facilities shall be conveniently located to clients and employees at all times when the premises are open for business.

- (1) The restroom shall be equipped with a toilet, toilet paper properly installed on a holder, and hand washing sink with hot and cold potable water, liquid soap and Single Use towels or hand dryer.

- (2) No equipment or supplies shall be stored in the restroom.
 - (3) Restrooms must be clean and maintained in proper operating order at all times.
- h. Laundering conducted on-site shall be located in a separate room, and linen shall be thoroughly washed and thoroughly dried with high heat.
 - (1) Chemicals suitable for use in laundering of towels and linens shall be used. Household bleach (sodium hypochlorite) and other chemicals shall be used according to manufacturer's specifications. Color safe bleach may not be used.
 - (2) Non-chemical methods of Sanitizing must be approved in writing by the Sanitarian.
- i. A commercial linen service shall be used for laundering if it is not done on the premises.
 - (1) Clean towels shall be delivered in closed container(s) and kept in a clean, closed cabinet or closet.
 - (2) Washing and/or drying of towels in private homes is prohibited.
- j. All contaminated Sharps/needles must be disposed of in a Sharps Container and shall be properly removed and disposed of according to OSHA guidelines.

§ 3. Operational Sanitation

- a. Dispensing of products
 - (1) A squeeze bottle or pump must be provided for dispensing lotions and powders.
 - (2) When only a portion of a cream, liquid, powder or other cosmetic preparation is to be removed from the container, it shall be removed in such a way as not to contaminate the remaining portion.
- b. Disinfection of Equipment and Implements
 - (1) All equipment and implements used on a customer shall be kept clean and Sanitary at all times. All items, other than Single Use disposable implements, shall undergo thorough cleansing and Disinfecting after each customer.
 - (a) Disinfectants shall be EPA registered hospital grade used in accordance with the manufacturer's instructions.
 - (b) Use of a UV system to Disinfect equipment and implements is prohibited.
 - (c) Non-electrical instruments must be washed with soap or detergent, rinsed with clean water, and then totally immersed with an EPA registered hospital grade Disinfectant used according to the manufacturer's instructions.
 - (d) Electrical clipper blades shall be Disinfected before and after each use. Disinfection is to be carried out in the following manner:
 - (i) remove all hair and foreign matter;
 - (ii) remove blade and all hair and foreign matter under blade; and
 - (iii) completely immerse clipper blade into an EPA registered hospital grade Disinfectant solution for not less than ten (10) minutes.
 - (iv) If the clipper blade cannot be removed, completely saturate clipper blade and attachment with an EPA-registered Disinfectant solution, spray, or foam used according to the manufacturer's instructions.
 - (e) All other electrical instruments must be cleaned of all foreign matter and then Disinfected in accordance with the manufacturer's instructions with an EPA registered hospital grade Disinfectant.

- (2) Cleaned and Disinfected implements shall be stored in Sanitary covered containers which shall contain a Disinfectant, or in a clean drawer.
- (3) Any instruments which will not immediately be Disinfected shall be placed in a properly labeled receptacle for future Disinfection.
- (4) Single Use disposable implements, and any other instrument which cannot be Disinfected, that come in contact with blood or body fluid must be immediately bagged and discarded in a closed trash container.
 - (a) All Single Use towels, papers, emery boards, orange sticks, buffing blocks, waxing sticks, cosmetic sponges, and other material shall be disposed of immediately after use in the proper receptacle and shall not be used again.
 - (b) Exception: orange sticks, emery boards, buffing squares, cosmetic sponges and disposable nail bits may be kept for the original customer if kept in a covered container labeled with the customer's name and only reused with the named customer.

§ 4. General Hygiene

a. A towel shall not be used for more than one (1) person without being properly laundered between each use.

b. Salon Technicians

- (1) Technicians must wear clean outer garments, observe a high degree of personal cleanliness, and employ the practice of Universal Precautions as defined in this title.
- (2) Technicians shall practice proper hand washing, with soap and warm water in an acceptable hand washing facility, before starting work, immediately after using the toilet, before and after eating, before serving each customer, and as often thereafter as may be necessary.
- (3) Technicians shall keep fingernails clean and neatly trimmed.
- (4) Technicians shall not wear cosmetics or jewelry that is deemed to interfere with personal hygiene or interfere with effective hand washing or the performance of any Body Art Procedure.
- (5) Salon Technicians shall not eat or drink while providing services to a customer.
- (6) Smoking or other use of tobacco by a Salon Technician or the client is prohibited.

No Technician shall remove warts or moles or treat any disease of a customer, nor perform any medical procedure, nor dispense any medical advice.

c. Health and Disease Control

- (1) Salon Technicians shall not practice when exhibiting symptoms of a contagious disease, including but not limited to an acute respiratory infection, fever, vomiting or diarrhea.
 - (a) The Operator shall not allow a technician to practice any Salon Activities when exhibiting symptoms of such disease.
 - (b) If the Operator suspects that a Technician has contracted such disease or has become a carrier of such diseases, the Operator shall immediately notify the Sanitarian.
- (2) Salon Activities shall not be practiced by or on any person showing signs of possibly being affected by an infectious disease, including but not limited to:
 - (a) rash, boils, infected wounds, open sores, abrasions, weeping dermatological lesions on exposed areas of the body, or
 - (b) parasitic infestation.
- (3) Salon Technicians shall not practice while under the influence of alcohol or drugs.

CHAPTER 8. REQUIREMENTS FOR SPECIFIC SALON ACTIVITIES

§ 1. Barbering and Hairdressing Salons

a. Work Stations

- (1) Chairs in Work Stations shall be separated to allow adequate space for the Technicians to comfortably and safely practice all procedures.
- (2) Three (3) foot wide aisles that are separate and discrete from Work Areas shall be maintained throughout the shop.
- (3) No hair dryers shall be placed in any waiting room or encroach on the required three (3) foot wide aisle space.

b. Operation

- (1) No hair clippings shall be allowed to accumulate on floors. Hair clippings shall be removed frequently and as soon as possible, in such a manner as not to cause objectionable conditions.
- (2) A Sanitary paper strip or clean towel shall be placed completely around the neck of each customer before an apron or any other protective device is fastened around the neck.
- (3) Shampoo bowls shall be used for Barbering, Hairdressing, and Cosmetology work only.
- (4) The use of credo blades is prohibited.

§ 2. Residential Salons

a. All Salon Activities practiced within a residence must be confined to a separate room, separated with ceiling-high partitions and provided with a door to be closed at all times.

b. The area within a residence where Salon Activities are practiced must be equipped with the facilities and instruments required in all such Salons practicing Salon Activities.

c. Residential Salons must comply with all requirements specified within this title for the Salon Activities practiced.

§ 3. Massage Therapy Salons

All Massage Therapy must be carried out in clearly designated rooms within the Salon. Such rooms shall provide privacy to the client(s).

- (1) Massage tables shall be cleaned and Disinfected after each use if the table comes in direct contact with customer.
- (2) Linens, if used on massage tables, shall be clean and changed after each customer.

§ 4. Nail Salons

Salons using whirlpool pedicure spas are required to use the following Disinfecting procedures, and maintain records of such, to ensure proper cleaning and maintenance of the equipment, and to prevent bacterial infection.

a. After each customer (this can take place any time after the client's feet are out of the footbath, while feet are massaged, toes are painted, or other opportunities):

- (1) drain the water from the foot spa basin or bowl and remove any visible debris;

- (2) clean the surfaces and walls of the foot spa with soap or detergent using a scrub brush and rinse with clean, clear water;
 - (3) fill the basin with clean water and add an EPA-registered hospital grade Disinfectant, following label directions. Turn the unit on and circulate the system with the liquid for ten (10) minutes, or the label indicated time, if different. Use of a timer is required. The whirlpool mechanism of the tub must be operating for the entire Disinfection period so the piping and internal components that contain hidden bacteria are Disinfected; and
 - (4) After Disinfection, drain and rinse with clean water.
- b. At the end of each day:
- (1) remove the filter screen, inlet jets, and other removable parts from the basin and clean out any debris trapped behind or in them. The Salon must have the proper tool to remove the screen;
 - (2) using a brush, scrub these parts with soap or detergent, then immerse screen in an EPA-registered hospital grade Disinfectant;
 - (3) rinse the removed parts with clean water and place them back into the basin apparatus;
 - (4) fill the basin with clean water and add an EPA-registered hospital grade Disinfectant, following label directions. Turn the unit on and circulate the system with the liquid for ten (10) minutes, or the label indicated time, if different. Use of a timer is required. The whirlpool mechanism of the tub must be operating for the entire Disinfection period so the piping and internal components that contain hidden bacteria are Disinfected; and,
 - (5) after Disinfection, drain, rinse and dry the unit.
- c. Weekly:
- (1) after following the outlined required cleaning procedures for the end of each day, fill the basin with warm water and add Disinfectant at the concentration recommended by the manufacturer;
 - (2) circulate the solution through the whirlpool system for a minimum of ten (10) minutes;
 - (3) turn jets off and let the solution sit overnight (at least six (6) hours); and
 - (4) the following morning (before the first customer) drain and flush the system with clean water and dry with a clean towel.
- d. For simple basins (no circulation):
- (1) drain the basin and remove any visible debris;
 - (2) scrub the bowl with a clean brush and soap. Rinse and drain;
 - (3) disinfect basin surfaces with an EPA-registered hospital grade Disinfectant, following manufacturer's instructions. Surfaces must remain wet with the Disinfectant for ten (10) minutes or the contact time stated on the label, using a timer; and
 - (4) drain the basin, rinse with clean water, and let air dry.

§ 5. Body Art Salons

- a. General
- (1) Body Art shall not be practiced on any individual under the age of 16.
 - (a) Minors, under the age of 18, require written consent from a documented legal parent or guardian.
 - (b) Such parental consent must be provided in person at the time the procedure is performed. A copy of the parent or guardian driver's license or similar state issued photo ID shall be retained.
 - (2) At no time shall a Technician or a client consume food or drink in a work room.

- (3) At no time shall alcoholic beverages be dispensed in the Salon practicing Body Art.
- (4) No client shall receive Body Art if they are judged to be intoxicated or under the influence of drugs.
- (5) The premises in which Body Art procedures are practiced shall have an area of at least one hundred (100) square feet.
- (6) The use of styptics or alum blocks to control bleeding is expressly prohibited.

b. Technicians

- (1) Technicians shall only practice Body Art activities under sterile conditions.
- (2) Both of the Technician's hands shall be covered with disposable, Single Use, examination gloves when a Body Art Procedure is being performed.
 - (a) Gloves must be changed if they have visible holes, rips, tears, or other compromises, touch any other person, or touch any object or thing that might be a source of contamination prior to or during a Body Art Procedure.
 - (b) New gloves must be donned for each new customer.
- (3) Technicians must hold current certification by the American Red Cross or the American Heart Association in First Aid.
- (4) Technicians must be trained in bloodborne pathogens per OSHA standards (29 CFR 1910.1030).

c. Workrooms

- (1) Workroom(s) must be physically separate and apart from waiting and all other areas.
- (2) The workroom shall not be used as a corridor for access to other rooms. Unnecessary traffic through a workroom is prohibited.
- (3) Hand sinks with hot and cold running water operated by wrist, knee or foot action shall be located in each workroom. Hand sinks shall be supplied with liquid soap and Single Use paper towels from Sanitary dispensers. If there are two or more Work Stations within a room, all may share the hand sink.

d. Work Stations

- (1) Individual Work Stations in the workroom shall be provided with:
 - (a) counter areas and storage cabinetry for Body Art instruments, dyes, ointments, bandages, etc., that are of Sanitary design, maintained in good repair, and protected from potential sources of contamination.
 - (b) an adequate supply of Single Use barrier materials for the purpose of covering and draping equipment, hardware, spray bottles or any other surfaces that might come into contact with the gloved hands of the Body Artist so as to prevent potential contamination from one person to another.
- (2) The surfaces of furniture, equipment and fixtures that come in contact with the body of a client or that may be directly or indirectly be exposed to contamination from blood, blood products, and other body fluids during the course of a procedure must be covered with barrier film.
- (3) At least fifty (50) foot-candles of artificial light shall be provided at the level where Body Art Procedure is being practiced. Spotlighting may be used to meet this requirement.
- (4) All Body Art Salons shall provide at least one Work Station that is capable of being completely screened from public view for clients requesting privacy.

e. Cleaning Room

The cleaning room or area shall have a separate sink reserved for instrument clean-up activities only.

f. Body Art Procedures

- (1) Each client must sign a consent form prior to any Body Art Procedure.
 - (a) The consent form must include the client's contact information, including name, address and phone number, in case follow-up is needed. The information must be verified by reviewing the client's driver's license or similar state issued photo ID.
 - (b) The form shall include a health questionnaire, previously approved by the Sanitarian, and at a minimum, contain information sufficient for the Salon Technician to verify compliance with the Health and Disease Control screening pursuant to Chapter 7, §4c(2).
- (2) Immediately prior to, and immediately following, the performance of a Body Art Procedure, the Technician shall scrub hands and forearms with liquid soap and dry Single Use towel.
- (3) The Technician must don intact disposable gloves prior to each procedure. If the gloves tear, or if contact is made with a contaminated surface during a procedure, or if any other breaks in the sterility chain occurs, the gloves shall be discarded immediately and replaced with a new pair of gloves.
- (4) Each needle and tube set/Sharps shall be either Single Use in commercially prepackaged in paper peel-packs, or heat-sealed plastic or other Autoclave packaging.
 - (a) All Sterilized instruments shall remain in sterile packages until opened in front of the client.
 - (b) Packaging material shall contain colorimetric sterilizer indicator.
 - (c) Expiration dates shall be based on commercial manufactures recommendation.
 - (d) No rusty, defective or faulty needles shall be used for Body Art.
- (5) All inks and similar products must be dispensed into Single Use cups for each client (no drawing directly from the storage bottle/jar)
- (6) All products applied to the skin, such as but not limited to, stencils, applicators, gauze and razors, shall be Single Use and disposable.
- (7) Prior to piercing or before placing the design on the patron's skin, the Technician shall treat the area with hospital grade antimicrobial solution, which shall be applied with a new, Single Use cotton, paper product or gauze. Evidence of abrasion, laceration, skin eruptions, or infection shall cause the Technician to refuse to perform the procedure.
- (8) Immediately upon completion of the procedure, used needles shall be placed into an acceptable Sharps Container for storage until final disposal from the premises.
- (9) If the Body Art Procedure area requires covering, it must be done with sterile, non-stick gauze, non-stick bandage or non-stick tissue and fastened to the body with an appropriate, adhesive first-aid type bandaging tape.
- (10) Each client shall be provided with Sanitarian-approved written instructions for the Aftercare of the Body Art and the Technician shall verbally review the provisions of the instructions with the client before departure.

g. Tattooing Specific Procedures

- (1) Tattoo machine bodies and power cords must be covered with new plastic wrap before each client.
- (2) When necessary to shave the area to be tattooed, only Single Use, disposable razors shall be used.
- (3) Single Use containers shall be used to hold the inks and dyes for each procedure, and shall be discarded immediately after use. All inks, dyes, pigments, solid core needles and equipment shall be specifically manufactured for performing Body Art Procedures and shall be used according to manufacturer's instructions.
- (4) The completed tattoo shall be washed using a hospital grade antimicrobial solution. The area shall be allowed to air dry, after which the artist shall apply a sterile ointment to the surface and

cover it with a Single Use, sterile dressing. Use of plastic wrap, napkins, paper towels, or any other material other than a Single Use sterile dressing is prohibited.

h. Body Piercing, Scarification, and Branding Procedures

- (1) Ear Piercing guns and Single Use, Sterilized Ear Piercing studs are to be used for Ear Piercing only. The Ear Piercing device may not be used to pierce any other part of the body.
- (2) Jewelry to be used for a Body Art Procedure must consist only of those materials listed in the definition of Jewelry in this title. Corroded, defective, or faulty needles and Jewelry shall not be used for Body Piercing.
- (3) For oral Piercings, or for Piercing of the cheek or lips, the artist shall require the client to swish with an approved antibacterial mouth rinse for a minimum of thirty (30) seconds.
- (4) The artist shall use a Single Use, sterile stainless steel needle for each piercing procedure, and upon completion of the procedure shall place it into an acceptable Sharps Container for storage until final disposal from the premises.

i. Sterilization Procedures

- (1) All reusable and non-disposable items used to provide Body Art services shall be thoroughly cleaned prior to Sterilization using one (1) of the following methods.
 - (a) The instruments shall be cleansed of all foreign materials and placed in an approved Ultrasonic Cleaner filled with an approved ultrasonic solution according to the manufacturer's directions.
 - (b) Instruments unable to be cleaned ultrasonically are to be placed in an EPA approved hospital grade Disinfectant solution for a minimum of twenty (20) minutes or according to the manufacturer recommendation.
- (2) Following cleaning, instruments are to be dried and then placed into individual Autoclave Sterilization bags, then sealed and marked with the date of Sterilization and an expiration date not to exceed six (6) months. A tape marker must be placed on the bag to indicate that the packet has been exposed to Autoclaving.
- (3) Sterilization shall be accomplished in an approved steam Autoclave. The Autoclave shall be used and maintained according to manufacturer's specifications.
- (4) If the indicator tape indicates that the packets have been exposed to Sterilizing conditions, the instrument packets shall be stored in a clean, covered container to minimize contamination until used.
- (5) The Autoclave shall be monitored monthly for effectiveness via a spore analyses by an independent commercial testing laboratory contracted by the Owner/Operator.
- (6) The following procedures shall be followed in the event of a positive test result indicating an improperly functioning Autoclave.
 - (a) Immediately, upon notice of the positive test, the Autoclave shall be taken out of service, and:
 - (i) all unused items processed in the Autoclave since the most recent negative test shall be considered non-sterile; and
 - (ii) the Sanitarian must be notified.
 - (b) While the Autoclave remains out of service, Body Art Procedures may continue, provided either another properly functioning Autoclave is placed in service in the establishment or all Single Use, pre-Sterilized instruments are used.
 - (c) All measures taken to correct or repair the Autoclave following a positive test shall be logged, and records of such maintained.
 - (d) The Autoclave shall not be restored to service unless it has been confirmed to be functioning properly through follow-up testing.

- (7) The Ultrasonic Cleaner(s) and Autoclave(s) shall not be located or operated in workrooms or any other areas frequented by the public.
- (8) An Autoclave is not required in establishments that exclusively use prepackaged, Single Use, Sterilized equipment and supplies including Body Piercing equipment and Jewelry. In such cases the Salon's registration shall include a written statement by the Owner/Operator attesting to the fact that only Single Use equipment shall be used.
- (9) All surfaces which are directly in contact with the client or with the instruments used to provide a Body Art procedure, as well as the surfaces immediately adjacent to the Work Area, including lights, chairs, tables, telephones, and walls, shall be cleaned immediately following a procedure using an EPA approved hospital grade Disinfectant.
- (10) Disposables and Single Use items shall be disposed into an approved container immediately following completion of the procedure. Under no circumstances is a Single Use item to be re-used. Sharps Containers must be located in close proximity of each Work Area. One (1) container may be used for multiple Technicians, but a minimum of one (1) Sharps Container for each separate room shall be provided.

j. Reporting

- (1) All Exposure Incidents (i.e. needle sticks/Sharps accidents) shall immediately be reported to the Sanitarian. An Exposure Incident record shall be maintained onsite.
- (2) A written report of any injury, infection complication or disease as a result of a Body Art Procedure, or complaint of injury, infection complication, or disease, shall be forwarded by the Operator to the Sanitarian within five (5) business days of its occurrence or knowledge thereof. The report shall include:
 - (a) the name and contact information of the affected client;
 - (b) the name and location of the Salon establishment involved;
 - (c) the nature of the injury, infection complication, or disease;
 - (d) the name and address of the affected client's health care provider, if any; and,
 - (e) any other information considered relevant to the situation.
- (3) The Sanitarian shall be immediately notified of a positive test indicating an improperly functioning Autoclave.
- (4) The Sanitarian shall be notified whenever a Technician had practiced Body Art on clients and later it was learned that the Technician had been contagious with a communicable disease.

k. Record Keeping – The following records must be kept and retained on-site for a period of at least two (2) years.

(1) Technician Records

- (a) All First Aid and Bloodborne Pathogen training certificates and records
- (b) Written evidence of Hepatitis B vaccination for each Technician and any other employee who may come in contact with bloodborne pathogens. An employee may refuse vaccination for hepatitis B, but a signed statement attesting to his/her refusal must be a part of his/her record.

(2) Client Records

- (a) All client consent forms including the health questionnaire and documents of parental consent.
- (b) All client injury and Exposure Incident reports pursuant to paragraph j(1). of this section. A copy of the report shall be provided to the client prior to his/her departure.

(3) Decontamination and Sterilization

- (a) Written procedures for the Decontamination and Sterilization of equipment and surfaces.

- (b) Written records of maintenance and sanitation of operating equipment, including repairs of Autoclaves and Ultrasonic Cleaners.
- (c) Written procedures for removing Sharps Containers from the premises.
- (d) Written records of biological monitoring of Sterilization devices conducted monthly, including spore test reports prepared by an independent testing agency approved by the department.
- (e) Written records of Autoclave maintenance and repairs.

§ 6. Events Involving Body Art

a. Licensing of Technicians

- (1) Only individuals who have or obtain a Mashantucket license to practice tattooing, may participate in the event.
- (2) The organizer or sponsor of the event must submit the fees and documentation required under Ch. 4 §1(a)(2) for each individual practicing tattooing in Mashantucket and submit such documentation to the Sanitarian no less than thirty (30) days prior to the beginning of the event.

b. Equipment and Facilities

- (1) Only Single Use disposable Sterilized supplies and or instruments shall be used. Each Technician shall bring enough pre-Sterilized Single Use instruments and supplies to last for the entire Event.
- (2) Required toilet facilities must be available as specified within ch. 7, §1h. and are to be maintained as specified within ch. 7, §2g.
- (3) Temporary Work Stations shall meet the following minimum requirements:
 - (a) be at least 10 ft.x10ft., and be constructed in a manner to separate the Technician from the public in such a way as to protect the procedure area from contamination, and to prevent accidental exposure of the public to potentially infectious materials created during the procedure;
 - (b) work chairs, benches, or tables shall be provided for each Salon Technician.
 - (c) floors and surfaces of the chairs, benches or tables shall be constructed of material that is smooth, non-absorbent, and Easily Cleanable.
 - (d) be supplied with an adequate supply of Single Use barrier materials for the purpose of covering and draping equipment, hardware, spray bottles or any other surfaces that might come into contact with the gloved hands of the Body Artist so as to prevent potential contamination from one person to another;
 - (e) have Easily Cleanable, waste receptacles and Sharps Container in close proximity of each individual Work Station; containers must be emptied regularly and not allowed to over fill.
 - (f) have temporary hand-washing facilities located within close proximity of each Work Station or demonstration area. A temporary hand-washing facility shall consist of liquid hand cleanser, Single Use paper towels and warm potable water dispensed from an insulated container with a spigot that is raised a minimum of twenty-five (25) inches off the floor. Wastewater shall be collected in a bucket placed on the floor under the spigot. Warm potable water shall be replenished and wastewater removed as necessary.
 - (g) have at least 50 foot-candles of light available at the level where the Body Art is being practiced. Spotlighting may be used to meet this requirement.
- (4) At least one Work Station that is capable of being completely screened from public view for clients requesting privacy shall be provided at each Event.

c. Operations

- (1) Body Art shall not be practiced on any individual under the age of 16.
 - (a) Minors, under the age of 18, require written consent from a documented legal parent or guardian.
 - (b) Such parental consent must be provided in person at the time the procedure is performed. A copy of the parent or guardian driver's license or similar state issued photo ID shall be retained.
- (2) No client shall receive Body Art if they are judged to be intoxicated or under the influence of drugs.
- (3) At no time shall a Technician or a client consume food or drink in an area specifically designated for Body Art Procedures.
- (4) The use of styptics or alum blocks to control bleeding is expressly prohibited.
- (5) The surfaces of furniture, equipment and fixtures that come in contact with the body of a client or that may be directly or indirectly be exposed to contamination from blood, blood products, and other body fluids during the course of a procedure must be covered with Single Use barrier material.
- (6) The Event Manager shall provide for pick-up and proper disposal of all waste.
- (7) Technicians are required to adhere to the operational sanitation requirements:
 - (a) for dispensing of products identified within ch. 7, §3(a);
 - (b) for general hygiene identified within ch. 7, §4;
 - (c) for Technicians specified within ch. 8, §5(b);
 - (d) for Body Art Procedures identified within ch. 8, §5 (f), (g), and (h); and,
 - (e) for tattooing specific procedures specified within ch. 8 §5(g).
- (8) All Exposure Incidents (i.e. needle sticks/Sharps accidents) shall immediately be reported to the Sanitarian. Exposure Incident records specified within ch. 8, §5(j)(2) shall be maintained onsite.
- (9) The Event Manager must maintain written records of services as described in ch. 8, §5(k).

d. The Event is subject to inspection without notice, and written records must be made available to the Sanitarian on request.

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TITLE 12: AIR QUALITY REGULATION***SUBTITLE 12.1 GENERAL PROGRAM*****§ 1. Scope**

This Clean Air Program consists of three distinct regulatory components:

- (1) the Tribal Implementation Plan (TIP) consisting of federally enforceable preconstruction permitting programs that:
 - (a) address attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) pursuant to section 110 of the Clean Air Act (The Act, 42 U.S.C. §7410), and
 - (b) allows a Source that otherwise has the Potential to Emit (PTE) Hazardous Air Pollutants (HAPs) in amounts at or above those for major sources of HAP (40 CFR 63.2) to request federally enforceable permit limitations to restrict the Source's PTE to below those of a Major HAP Source;
- (2) Tribal only rules that are intended to ensure facility compliance with other obligations under The Act; and
- (3) programs that the Administrator may approve or may delegate regulatory authority to the Mashantucket Pequot Tribal Nation Air Quality Program (MPTN AQP) for implementation.

§ 2. Applicability

- a. Requirements stated within this Title are applicable to any Person who owns, operates or seeks to construct a Stationary Source of Air Pollutants within Mashantucket.
- b. The effective date of this regulation is October 11, 2018.

§ 3. Legal Authorities

- a. Federal Recognition - The Mashantucket Pequot Tribe was recognized in 1983 by Congressional legislation (Pub.L 98-134, § 9, Oct. 1St, 1983 97 Stat 855, Title 25 U.S.C.A. § 1751-1760).
- b. Tribal Authority to Regulate Air Quality
 - (1) Tribal Council Resolution (TCR) 102600-01 of 02 resolved, "that the Mashantucket Pequot Tribal Council desires to protect the air quality of the regional airshed by establishing Primary Regulatory Authority and creating a Tribal Air Quality Program."
 - (2) Pursuant to the stated desire of TCR102600-01 of 02, an application for Treatment in a similar manner As a State (TAS), under section 301of the Clean Air Act (42 U.S.C. § 7601), was submitted to Region 1 of the Environmental Protection Agency (EPA) on May 4, 2005. EPA issued the favorable eligibility determination to administer a tribal implementation plan under section 110 of The Act (42 U.S.C. §7410) and Title V of the CAA (42 U.S.C. §7661 *et seq.*) on July 10, 2008.
 - (3) TRC091605-01 of 01 approved a draft Tribal Implementation Plan (TIP) and established procedures to make modifications to the TIP, as necessary, based on public and EPA comment subject to final Tribal Council approval.
 - (4) TCR060806-06 OF 14 adopted the Global Policy for Air Permitting that specified the applicability and review procedures for incorporating "Best Available Control Technology" within permits issued by the MPTN AQP.
 - (5) TCR TCR101118-05 of 05 adopted 47 M.P.T.L., Clean Air Program, which created the MPTN Air Quality Program (AQP), defines the AQP's authority to permit and enforce, and details the procedures required to adopt regulations.

§ 4. Definitions

a. As used in this Title, all terms not defined herein will have the meaning given them within the Clean Air Act. The specific interpretation of terms defined within the Clean Air Act may be subject to EPA policy, memoranda, and guidance. Further, the meaning of such terms may evolve through subsequently promulgated procedures or standards. Therefore, in the event that a term defined in this regulation may become inconsistent with the term further defined within the Clean Air Act, or contradictory to the current interpretation by EPA at that time, the EPA-accepted meaning shall govern.

b. Definitions

- (1) “The Act” or “Clean Air Act” means 42 U.S.C. §7401 et seq., as amended.
- (2) “Administrator” means the Administrator United States Environmental Protection Agency (EPA) or an authorized representative.
- (3) “Air Pollutant” means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and by-product material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any Air Pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term Air Pollutant is used.
- (4) “Air Quality Program” or “AQP” means the regulatory body within the Mashantucket Pequot Tribal government which has been delegated authority over air pollution.
- (5) “Attainment Pollutant” means any Air Pollutant, and pollutants identified as constituents or precursors for that pollutant, for which Mashantucket has been designated as an Attainment or Unclassifiable Area.
- (6) “Attainment or Unclassifiable Area” means for any Air Pollutant, an area designated as attainment or unclassifiable under §107(d)(1)(B) of The Act (42 U.S.C. §7407).
- (7) “Authorized Representative” means, as it pertains to a permittee, an individual selected by the Owner/Operator who is approved to represent the entity in aspects related to this Clean Air Program. The Authorized Representative shall be responsible for, or oversee those individuals responsible for, emissions calculations, submittal of applications, and compliance assurance under this program.
- (8) “Building, Structure, Facility or Installation” means all of the pollutant-emitting activities that belong to the same industrial grouping, are located on one or more contiguous or adjacent properties and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “major group” (i.e. which have the same first two-digit code) as described in the Standard Industrial Classification Manual, as amended.
- (9) “Construction” means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an Emissions Unit) that would result in a change in emissions.
- (10) “Commence” means, as applied to a new Stationary Source or Modification at an Existing Source, that the Owner or Operator has all necessary preconstruction approvals or permits and either has:
 - (a) begun on-site activities including, but not limited to, installing building supports and foundations, laying underground piping or erecting/installing permanent storage structures. The following preparatory activities are excluded: engineering and design planning, geotechnical investigation (surface and subsurface explorations), clearing, grading, surveying, ordering of equipment and materials, storing of equipment or setting up temporary trailers to house construction management or staff and contractor personnel; or
 - (b) entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual Construction of the source to be completed within a reasonable time.
- (11) “Day” means calendar day unless otherwise specified.
- (12) “Enforceable as a Practical Matter” means that an Emission Limitation or other standard is both legally and practicably enforceable as follows.

- (a) An Emission Limitation or other standard is legally enforceable if the Reviewing Authority has the right to enforce it.
 - (b) Practical enforceability for an Emissions Limitation or for other standard (e.g. design standards, equipment standards, work practices, operational standards, or pollution prevention techniques) in a permit for a source is achieved if the permit's provisions specify:
 - (i) a limitation or standard and the Emissions Units or activities at the source subject to the limitation or standard;
 - (ii) the time period for the limitation or standard (e.g., hourly, daily, monthly and/or annual limits such as rolling annual limits); and
 - (iii) the method to determine compliance, including appropriate monitoring, recordkeeping, reporting and testing.
 - (c) For rules and general permits that apply to categories of sources, practical enforceability additionally requires that the provisions:
 - (i) identify the types or categories of sources that are covered by the rule or general permit;
 - (ii) where coverage is optional, provide for notice to the Reviewing Authority of the source's election to be covered by the rule or general permit; and
 - (iii) specify the enforcement consequences relevant to the rule or general permit.
- (13) “Hazardous Air Pollutant” or “HAP” means any Air Pollutant listed in or pursuant to section 112(b) of The Act (42 U.S.C. §7412(b)).
- (14) “Mashantucket” means lands that are part of the Mashantucket (Western) Pequot Reservation and trust lands validly set aside for use of the Mashantucket Pequot Tribe.
- (15) “National Ambient Air Quality Standard” or “NAAQS” means the ambient air quality standards the Administrator has promulgated pursuant to section 109 of The Act (42 U.S.C. §7409).
- (16) “Nonattainment Area” means, for any Air Pollutant, an area which is designated as a “nonattainment area” under §107(d)(1)(B) of The Act (42 U.S.C. §7407).
- (17) “Nonattainment Pollutant” means any Air Pollutant, and pollutants identified as a constituents or precursors for that pollutant, for which Mashantucket has been designated as a Nonattainment Area.
- (18) “Owner or Operator” or “Owner/Operator” means any Person who owns, leases, operates, controls, or supervises a Facility, Building, Structure, or Installation, which directly or indirectly results or may result in emissions of any Air Pollutant for which a national or Tribal standard is in effect.
- (19) “Person” shall mean any Tribal Member, Tribal employee, individual, partnership, firm, company, contractor or subcontractor, corporation, association, organization, estate, governmental entity or any other legal entity or its representative, agents or assigns. Use of the singular shall also include the plural.
- (20) “Reviewing Authority” means, unless otherwise specified, the Air Quality Program as defined within paragraph b(4) of this section.
- (21) “Stationary Source” or “Source” means any Building, Structure, Facility, of Installation which emits or may emit a pollutant subject to the requirements of this title.

SUBTITLE 12.2 NEW SOURCE REVIEW – MPTN TIP**CHAPTER 1. GENERAL PROVISIONS****§ 1. Scope**

This Tribal Implementation Plan (TIP) establishes a preconstruction permitting program for new and modified Stationary Sources located within Mashantucket.

- (1) It provides a mechanism for an otherwise major source to voluntarily accept Emission Limitations to restrict its Potential to Emit and become a Synthetic Minor Source.
- (2) It provides the option for major Stationary Sources, seeking to minimize permitting complexities associated with major new source review, to establish a Plant Wide Applicability Limitation within an Actuals PAL permit.
- (3) It sets forth the criteria and procedures that the AQP will use to administer the program.

§ 2. Applicability

a. Requirements of this TIP are applicable to any Person who owns, operates, seeks to construct or plans to modify a Stationary Source of Air Pollutants located within Mashantucket.

- (1) If you Begin Actual Construction of a New Source or Modification that is subject to this subtitle without applying for and receiving a permit pursuant to this subtitle, you will be subject to appropriate enforcement action.
- (2) If you do not construct or operate your source or Modification in accordance with the terms of your permit, you will be subject to appropriate enforcement action.

b. Issuance of a permit under this subtitle does not relieve any owner or operator of the responsibility to comply fully with applicable provisions of this TIP and any other requirements under tribal or federal law.

§ 3. Definitions

a. As used in this subtitle, all terms not defined herein will have the meaning given them within the Clean Air Act except that, where it occurs, the word “State” shall be replaced by the word “Tribe,” “Tribal,” or “Mashantucket” as applicable. The term incorporated by reference shall mean as may be amended from time to time.

- (1) For sources of Regulated NSR Pollutants in Attainment or Unclassifiable Areas, the definitions in 40 CFR §52.21, to the extent that they are used in this subtitle, are incorporated by reference.
- (2) For sources of Regulated NSR Pollutants in Nonattainment Areas, the definitions in 40 CFR Part 51, Appendix S, to the extent that they are used in this subtitle, are incorporated by reference.
- (3) For sources of HAP, the definitions in 40 CFR §63.2, to the extent that they are used in this subtitle, are incorporated by reference.

b. The following definitions apply to this subtitle.

- (1) “Actual Emissions” means:
 - (a) 40 CFR Part 51, Appendix S, paragraph II.A.13 for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (b)(21) for any Attainment Pollutant.
- (2) “Actuals PAL” means the definition specified in:
 - (a) 40 CFR Part 51, Appendix S, paragraph IV.K.2(i) for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (aa)(2)(i) for any Attainment Pollutant.
- (3) “Affected Emissions Units” means, excluding those Exempt Minor NSR Emissions Units and Activities at a Minor Source, the following Emissions Units, as applicable.
 - (a) For a proposed New Source, all the Emissions Units.

- (b) For a proposed Modification, the new, modified and replacement Emissions Units involved in the Modification.
- (4) “Allowable Emissions” means the definition specified in:
 - (a) 40 CFR Part 51, Appendix S, paragraph II.A.11 for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (b)(16) for any Attainment Pollutant.
- (5) “Begin Actual Construction” means:
 - (a) 40 CFR Part 51, Appendix S, paragraph II.A.17 for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (b)(11) for any Attainment Pollutant.
- (6) “Emergency Engine” means any stationary engine that meets the following criteria.
 - (a) The Emergency Engine is operated to provide electrical power or mechanical work during an emergency situation. Examples include a stationary engine used to produce power for critical networks or equipment (including power supplied to portions of a Facility) when electric power from the local utility (or the normal power source, if the Facility runs on its own power production) is interrupted, or a stationary engine used to pump water in the case of fire or flood, etc.
 - (b) The Emergency Engine may also be operated under limited circumstances as specified, as amended from time to time, in 40 CFR §63.6640(f).
- (7) “Emission Limitation” means a requirement established by the AQP, or Administrator, that limits the quantity, rate or concentration of emissions of Air Pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emissions reduction and any design standard, equipment standard, work practice, operational standard or pollution prevention technique. Emission Limitations must be Enforceable as a Practical Matter.
- (8) “Emission Standard” means any applicable New Source Performance Standard in 40 CFR Part 60, any applicable National Emission Standard for Hazardous Air Pollutants in 40 CFR Parts 61 or 63, and any federal standard for designated facilities and pollutants in 40 CFR Part 62, in all cases as amended from time to time, which limits the quantity, rate, or concentration of emissions of air contaminants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment, work practice, or operational standard adopted under The Act.
- (9) “Emissions Unit” means the definition specified in:
 - (a) 40 CFR Part 51, Appendix S, paragraph II.A.7 for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (b)(7) for any Attainment Pollutant.
- (10) “Exempt Minor NSR Emissions Units and Activities” means the following Emissions Units and activities at a source:
 - (a) mobile sources;
 - (b) ventilating units for comfort that do not exhaust Air Pollutants into the ambient air from any manufacturing or other industrial processes;
 - (c) cooking of food, except for wholesale businesses that both cook and sell cooked food;
 - (d) consumer use of office equipment and products;
 - (e) janitorial services and consumer use of janitorial products;
 - (f) internal combustion engines used for landscaping purposes;
 - (g) bench scale laboratory activities, except for laboratory fume hoods or vents;
 - (h) single family residences and other residences with four or fewer dwelling units;
 - (i) Emergency Engines, designed solely for the purpose of providing electrical power during power outages, when the total maximum manufacturer's site-rated horsepower (HP) for all units is below 500.
 - (j) stationary internal combustion engines with a manufacturer's site-rated horsepower of less than 50 HP;
 - (k) furnaces or boilers used for space heating that use only gaseous fuel, with a total maximum heat input (i.e., from all units combined) of 5 million British thermal units per hour (MMBtu/hr) or less; and
 - (l) air conditioning units used for human comfort that do not exhaust Air Pollutants in the atmosphere from

any manufacturing or other industrial processes.

- (11) “Existing Source” means:
- (a) for the purposes of initial compliance on the effective date of this TIP, a Stationary Source at which Construction, Modification, or reconstruction was Commenced before that effective date; and
 - (b) for the purpose of assessing compliance after the effective date of this TIP, any Stationary Source which is not a New Source.
- (12) “Fugitive Emissions” means emissions of an air contaminant, which could not reasonably pass through a stack, vent, chimney or other functionally equivalent opening.
- (13) “Greenhouse Gases” or “GHGs” means the aggregate group of six Greenhouse Gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).
- (14) “Major HAP Source” means any Stationary Source or group of Stationary Sources located within a contiguous area and under common control that emits or has the Potential to Emit, considering controls, any Hazardous Air Pollutant, which has been listed pursuant to section 112(b) of the Act, in the aggregate:
- (a) 10 tons per year or more of any Hazardous Air Pollutant, or
 - (b) 25 tons per year or more of any combination of Hazardous Air Pollutants,
 - (c) unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this definition.
- (15) “Major NSR Source” means:
- (a) for the purpose of evaluating Nonattainment Pollutants, Major Stationary Source as defined at 40 CFR Part 51, Appendix S, paragraph II.A.4; and
 - (b) for the purpose of evaluating Attainment Pollutants, Major Stationary Source as defined at 40 CFR §52.21, paragraph (b)(1).
- (16) “Minor Modification” means the following:
- (a) A Modification at a Major NSR Source which, after determining that the Modification is not a Major Modification, would result in a Net Emissions Increase for the pollutant evaluated, from the actual-to-projected-actual test, equal to or greater than the Minor NSR Threshold.
 - (i) When evaluating Nonattainment Pollutants, Major Modification is defined at 40 CFR Part 51, Appendix S, paragraphs II.A.5.
 - (ii) When evaluating Attainment Pollutants, Major Modification is defined at 40 CFR §52.21(b)(2).
 - (b) A Modification at a Minor Source in which the total increase in Allowable Emissions resulting from the Modification would equal or be greater than the Minor NSR Threshold for that pollutant. The total increase in Allowable Emissions resulting from the Modification is the sum of the following:
 - (i) for each new Emissions Unit that is to be added, the emissions increase would be the Potential to Emit of the Emissions Unit;
 - (ii) for each Emissions Unit with an Allowable Emissions limit that is to be changed or replaced, the emissions increase would be the Allowable Emissions of the Emissions Unit after the change, or replacement, minus the Allowable Emissions prior to the change or replacement. However, this may not be a negative value. If the Allowable Emissions of an Emissions Unit would be reduced as a result of the change or replacement, use zero in the calculation; and,
 - (iii) for each unpermitted Emissions Unit (a unit without any enforceable permit conditions) that is to be changed or replaced, the emissions increase is the Allowable Emissions of the Emissions Unit after the change or replacement minus the Potential to Emit prior to the change or replacement. However, this may not be a negative value. If an Emissions Unit's post-change Allowable Emissions would be less than its pre-change Potential to Emit, use zero in the calculation.
- (17) “Minor NSR Source” means a Stationary Source, which is otherwise not a Synthetic Minor Source or Major NSR Source and, without including Exempt Minor NSR Emissions Units and Activities, has a Potential to

- Emit, any Regulated NSR Pollutant evaluated, equal to or greater than the Minor NSR Threshold.
- (18) “Minor NSR Threshold” means, without including Exempt Minor NSR Emissions Units and Activities, any of the following cutoffs for the applicable Regulated NSR Pollutant evaluated, as measured in tons of pollutant emitted per year (tpy).
- (a) Nitrogen oxides (NO_x), 10
 - (b) Volatile Organic Compounds, 5
 - (c) Carbon monoxide (CO), 10
 - (d) Sulfur dioxide (SO₂), 10
 - (e) Particulate Matter, 10
 - (f) PM₁₀, 5
 - (g) PM_{2.5}, 3
 - (h) Lead, 0.1
 - (i) Fluorides, 1
 - (j) Sulfuric acid mist, 2
 - (k) Hydrogen sulfide (H₂S), 2
 - (l) Reduced sulfur compounds (incl. H₂S), 2
 - (m) Municipal waste combustor emissions, 2
 - (n) Municipal solid waste landfill emissions, 10
(as nonmethane organic compounds)
 - (o) Any other limit that may become applicable in the event that an attainment designation for Mashantucket is changed by the Administrator.
- (19) “Minor Source” means any Stationary Source of Regulated NSR Pollutants that is not a Major NSR Source.
- (20) “Modification” means:
- (a) any physical or operational change at a Stationary Source that would cause:
 - (i) an increase in the Allowable Emissions of any Minor Source;
 - (ii) an increase in the Actual Emissions (based on the applicable test under the major NSR program) of a Major NSR Source for any Regulated NSR Pollutant; or
 - (iii) the emission of any Regulated NSR Pollutant not previously emitted.
 - (b) Allowable Emissions of a Minor Source include Fugitive Emissions, to the extent that they are quantifiable, only if the source belongs to one of the source categories listed in part 51, Appendix S, paragraph II.A.4(iii) or § 52.21(b)(1)(iii), as applicable.
 - (c) The following exemptions apply:
 - (i) a physical or operational change does not include routine maintenance, repair or replacement;
 - (ii) an increase in the hours of operation or in the production rate is not considered an operational change unless such change is prohibited under any permit condition that is Enforceable as a Practical Matter; and
 - (iii) a change in ownership at a Stationary Source.
- (21) “New Source” means a Stationary Source on which Construction, Modification, or reconstruction was Commenced after the effective date of the TIP.
- (22) “Plantwide Applicability Limitation” or “PAL” means the definition specified in:
- (a) 40 CFR Part 51, Appendix S, paragraph IV.K.2(v) for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (aa)(2)(v) for any Attainment Pollutant.
- (23) “Potential to Emit” or “PTE” means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is Enforceable as a Practical Matter. Secondary Emissions do not count in determining the Potential to Emit of a source.

- (24) “Regulated NSR Pollutant” means the definition specified in:
 - (a) 40 CFR Part 51, Appendix S, paragraph II.A.31 for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21 paragraph (b)(50) for any Attainment Pollutant.
- (25) “Secondary emissions” means the definition specified in:
 - (a) 40 CFR Part 51, Appendix S, paragraph II.A.8 for any Nonattainment Pollutant; and
 - (b) 40 CFR §52.21, paragraph (b)(18) for any Attainment Pollutant.
- (26) “Stack” means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares.
- (27) “Synthetic Minor Source” means a source that otherwise has the Potential to Emit Regulated NSR Pollutants or HAPs in amounts that are at or above those defining a Major NSR Source or Major HAP Source, but that has taken restrictions, in the form of Emission Limitations, so that its Potential to Emit is less than such amounts.

§ 4. Plan Revisions

The Air Quality Program may revise the TIP from time to time provided such changes are:

- (1) consistent with, and adopted following the requirements specified within 47 M.P.T.L. ch. 1, §4;
- (2) consistent with the requirements applicable to implementation plans under section 110 of The Act (42 U.S.C. § 7410);
- (3) submitted to the Administrator, with a certification that the public participation procedures outlined in 47 M.P.T.L. ch. 3, §1 were followed, no later than sixty (60) Days after adoption; and
- (4) approved by the Administrator.

§ 5. Public Participation

a. Public Comment Required

- (1) The AQP must provide opportunity for public comment on all draft permits and public record prior to permit issuance; except that the procedures outlined in this section are not required for:
 - (a) sources seeking coverage under a general permit; and,
 - (b) administrative permit revisions; however,
 - (c) the AQP may determine that public participation is warranted for these actions when taking into consideration the duration of the operation, its location, the nature and projected amount of emissions, anticipated public concern, or any other relevant factors.
- (2) While additional applicable requirements and procedures may be specified within subsequent chapters of this subtitle, at a minimum, the opportunity for public participation on a permit shall include:
 - (a) availability, in the area affected by the air pollution source, of the draft permit and associated public record, as described in paragraph e. of this section, for public inspection;
 - (b) public notice, as provided under paragraph b. of this section, describing the availability of the documents for review and the opportunity to comment;
 - (c) a comment period, no less than thirty (30) Days commencing upon the date of notice publication, for the public to provide comments regarding the draft permit;
 - (d) a thirty (30) day period for EPA to review commencing upon the date a copy of the required notice is provided to the Administrator through the appropriate Regional Office; and
 - (e) if required by paragraph c. of the section, or if the AQP determines that comments received were significant and warrant such, a public hearing for tentative approval of the permit shall be held with notice provided as specified below in paragraph c of this section.

b. Public Notice

- (1) The AQP shall notify the public of a draft permit by a method described in either paragraph b(1)(a) or b(1)(b) of this section. The selected method, known as the “consistent noticing method,” shall comply with the public participation procedural requirements of 40 CFR §51.161, as amended from time to time, and be used for all permits issued under this subtitle and may, when appropriate, be supplemented by other noticing methods on individual permits.
 - (a) Post the information in paragraphs b(1)(a)(i) through (iii) of this section, for the duration of the public comment period, on a public Web site identified by the reviewing authority.
 - (i) A notice of availability of the draft permit for public comment;
 - (ii) the draft permit; and
 - (iii) information on how to access the administrative record for the draft permit.
 - (b) Publish a notice of availability of the draft permit for public comment in a newspaper of general circulation in the area where the source is located. The notice shall include information on how to access the draft permit and the administrative record for the draft permit.
- (2) All public notices issued under this subpart shall contain the following minimum information:
 - (a) name and address of the permitting authority processing the permit;
 - (b) name and address of the permittee or permit applicant and, if different, of the Facility regulated by the permit, except in the case of draft general permits;
 - (c) activity or activities involved in the permit action;
 - (d) emission changes involved in any permit revision;
 - (e) name, address, and telephone number of a person whom interested persons may contact for instructions on how to obtain additional information (e.g. a copy of the draft permit, the statement of basis, the application, relevant supporting materials, or other materials available to the permitting authority that are relevant to the permitting decision);
 - (f) brief description of the comment procedures required by paragraph c of this section, a statement of procedures to request a hearing (unless a hearing has already been scheduled), and other procedures by which the public may participate in the final permit decision; and
 - (g) any additional information considered necessary or proper.
- (3) A public notice of a hearing shall contain the following additional information:
 - (a) date, time, and place of the hearing;
 - (b) brief description of the nature and purpose of the hearing, including the applicable rules and the comment procedures; and
 - (c) reference to the date of any previous public notices relating to the permit.
- (4) Notice of a public hearing may be combined with the notice of tentative permit issuance.

c. Public comments and requests for public hearings.

- (1) During the comment period described within this section, any interested Person may submit written comments and may request a public hearing, if no hearing has been scheduled.
- (2) A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised at the hearing.
- (3) A record of the comments made and answered during the public participation process shall be maintained by the AQP and made available to the public upon request.
- (4) If any data, information, or arguments submitted during the public comment period appear to raise substantial new questions concerning a permit, the AQP may take one or more of the following actions:
 - (a) prepare a new draft permit, appropriately modified;
 - (b) prepare a revised statement of basis, and reopen the comment period; or
 - (c) reopen or extend the comment period to give interested public persons an opportunity to comment on the information or arguments submitted.

- (5) Comments filed during the reopened comment period shall be limited to the substantial new questions that caused the reopening. The public notice shall define the scope of the reopening.
- (6) All comments shall be considered in making the final decision regarding issuance of the permit.
- d. Public hearings
 - (1) Public notice of hearings shall be given as described in paragraph b(1) and include the content specified in b(2)-(3) of this section.
 - (2) Whenever a public hearing is held, the AQP shall designate a Presiding Officer for the hearing who shall be responsible for its scheduling and orderly conduct.
 - (3) Any public person may submit oral or written statements, and data applicable to the purpose of the hearing. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period shall be automatically extended to the close of any public hearing under this section. The Presiding Officer may also extend the comment period further by so stating at the hearing.
 - (4) Records will be kept of the hearing which shall contain a list of witnesses and the comments of each witness.
- e. Public Record
 - (1) With the exception of any material determined to be confidential pursuant to paragraph e(2) of this section, the AQP must make available for public inspection the documents listed in (a) through (e) of this paragraph.
 - (a) Permit applications including any supporting materials submitted with the application (e.g. the applicant's control technology review);
 - (b) any additional information requested by the AQP;
 - (c) the AQP's analysis of the application, including any analysis of the effect of the construction of the source or modification on ambient air quality;
 - (d) for coverage under a general permit, the AQP's analysis of whether your particular emissions unit or source is within the category of emissions units or sources to which the general permit applies (i.e. meets any criteria to be eligible for coverage under the general permit); and
 - (e) a copy of the draft permit or the decision to deny the permit with the justification for denial.
 - (2) Confidential Information entitled to protection under § 114(c) of the Clean Air Act (42 U.S.C. § 7414(c)).
 - (a) An applicant or permittee required to submit information entitled to protection from disclosure under a claim of confidentiality:
 - (i) may submit the material separately;
 - (ii) shall precisely identify the material for which the confidentiality claim is asserted; and,
 - (iii) shall provide sufficient supporting information to allow evaluation of that claim.
 - (b) All confidentiality claims made regarding material submitted to the AQP shall be evaluated under 40 CFR Part 2, Subpart B, as amended from time to time. Information which is emission data, a standard or limitation, or is collected pursuant to § 211(b)(2)(A) of the Clean Air Act (42 U.S.C. § 7545) is not eligible for confidential treatment, as provided in 40 CFR § 2.301(e).

§ 6. Global Permit Provisions

- a. The following provisions shall be incorporated as conditions within all permits issued pursuant to this subtitle.
 - (1) The permittee shall, at all times, properly operate and maintain the sources and systems of treatment and control, and the appurtenances related to them which are installed or used by the permittee to achieve compliance with the conditions of the permit.
 - (a) Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.
 - (b) It is not a defense for you, as the permittee in an enforcement action, that it would have been necessary

to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

- (2) A violation by the Owner/Operator of any Emission Limitation, Emission Standard or any other condition contained in a permit shall subject the Owner/Operator to any or all enforcement penalties, including permit revocation, available under the Clean Air Program. No subsequent permit will be issued until violations have been resolved to the satisfaction of the AQP.
- (3) Permit conditions will be quantifiable and Enforceable as a Practical Matter. The permit shall contain monitoring, record keeping, and reporting conditions sufficient to determine ongoing compliance.
- (4) The permitted source must not cause or contribute to a violation, or interfere with maintenance of, the NAAQS.
- (5) A source shall be in compliance with all applicable tribal or federal air pollution control rules or regulations at the time the New Source or Modification commences operation.
- (6) The issuance of a permit does not prevent the future adoption by the AQP of pollution control rules, standards or orders more stringent than those in existence at the time the permit is issued and does not prevent the enforcement of these rules, standards or orders against the permittee.
- (7) The permit shall include a severability clause to ensure the continued validity of the other portions of the permit in the event of a challenge to a portion of the permit.
- (8) The permit does not convey any property rights of any sort or any exclusive privilege.
- (9) The permittee shall furnish to the AQP, within a reasonable time, any information that the AQP may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. For any such information claimed to be confidential, you must also submit a claim of confidentiality in accordance with 40 CFR Part 2, Subpart B.
- (10) A permit once issued shall become invalid if the Owner/Operator does not Commence Construction within 18 months after the effective date of the permit, if Construction is discontinued for a period of 18 months or more, or if Construction is not completed within a reasonable time. The AQP may extend the 18 month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between Construction of the approved phases of a phased project; you must Commence Construction of each such phase within 18 months of the projected and approved commencement date for each phase.

b. A permit may be revised, reopened, revoked and reissued or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

c. If the permit, or coverage under a general permit, is denied, the reasons for such denial and the procedures for appeal, as outlined in subtitle 12.4, ch. 3, shall be provided in writing.

§ 7. Permit Fees

- a. The permit fees shall be as specified within subtitle 12.4, chapter 1 of this title.
- b. Applications shall not be acknowledged as received until the application fee is collected.
- c. If, pursuant to subtitle 12.4, chapter 1, §2, a permit issuance fee is required, the AQP shall not issue the permit until that fee is paid in full.

§ 8. ReOpening of Issued Permits

- a. The AQP may reopen an existing, currently-in-effect permit, for cause on its own initiative, such as if the permit contains a material mistake or fails to assure compliance with applicable requirements.
- b. No permit, subject to the public participation procedures specified within §5 of this chapter, shall be reopened without providing the opportunity for public participation equal to that specified prior to the initial permit issuance.

§ 9. Administrative Permit Revisions

- a. An administrative permit revision is a permit revision that makes any of the following changes:
 - (1) corrects typographical errors;
 - (2) identifies a change in the name, address or phone number of any person identified in the permit or provides a similar minor administrative change at the source;
 - (3) allows for a change in ownership or operational control of a source where the provisions of §10 of this chapter are satisfied;
 - (4) requires more frequent monitoring or reporting by the permittee;
 - (5) establishes an increase in an Emissions Unit's annual Allowable Emissions limit for a Regulated NSR Pollutant, when the action that necessitates such increase is not otherwise subject to the permitting requirements within this subtitle;
 - (6) establishes an Emission Limitation for a replacement unit when the Construction of which does not trigger the need for a new permit; or
 - (7) incorporates any other type of change that the Reviewing Authority has determined to be similar to those in paragraphs a(1)-(6) of this section.
- b. An administrative permit revision is not subject to the permit application, issuance, public participation or administrative and judicial review requirements of this TIP.

§ 10. Change in Ownership

A permit is valid only for the Emissions Unit(s), Owner/Operator, Facility, mode of operation and special conditions stated in the application, or permit. The Owner/Operator can transfer the permit to a new Owner/Operator by seeking an administrative permit revision, as specified in §9 of this chapter, if:

- (1) the mode of operation and emissions do not change;
- (2) the AQP determines that no other change in the permit is necessary; and
- (3) a written agreement between the current and new permittee is submitted to the AQP containing the specific date for transfer of permit responsibility, coverage, and liability.

CHAPTER 2. MINOR NEW SOURCE REVIEW**§ 1. Purpose**

- a. The purpose of this section is to establish a preconstruction permitting program, for new Minor NSR Sources and Minor Modifications at Stationary Sources, that meets the requirements of section 110(a)(2)(C) of the Act (42 U.S.C. § 7410(a)(2)(C)); and to,

- b. establish a mechanism for an otherwise major source to voluntarily accept restrictions on its potential to emit to become a synthetic minor source. This mechanism may also be used by an otherwise Major HAP Source to voluntarily accept restrictions on its potential to emit to become a synthetic minor HAP source.

§ 2. Applicability

- a. Owners/Operators of the following Stationary Sources must apply for and be granted a permit pursuant to this chapter prior to Beginning Actual Construction:
 - (1) new Minor NSR Sources;
 - (2) Existing Sources seeking to undertake a Minor Modification; and,
 - (3) any Existing Source proposing a physical or operational change at a permitted source that would increase an

Emissions Unit's allowable emissions of a Regulated NSR Pollutant above its existing annual allowable emissions limit must obtain a permit revision to reflect the increase in the limit prior to making the change.

- (a) For physical or operational changes that otherwise are not subject to review under this subtitle, such increase in the annual allowable emissions limit, may be accomplished through an administrative permit revision as provided in Ch. 1, § 9a(5) and (6) of this subtitle.
- (b) Physical or operational changes to existing units, or units that replace existing units, for which short-term emission limits had been established must remain compliant, after the change, with those Emission Limitations; otherwise, the permit revision shall not be issued administratively and is subject to the same public participation and administrative and judicial review requirements as stipulated for a Minor NSR permit.

b. Owners/Operators proposing to construct a new source which meets the requirements of a General Permit issued by the MPTN AQP may seek coverage under the provisions specified within §4 of this chapter.

c. Owners/Operators of a new Synthetic Minor Source or an Existing Synthetic Minor Source proposing a Modification, which is not a Major Modification, must obtain a new Synthetic Minor Source permit pursuant to §5 of this chapter prior to Beginning Actual Construction of the Modification.

d. Owners/Operators proposing a Modification at a Facility that maintains its total source-wide emissions for each pollutant evaluated below a Plantwide Applicability Limit (PAL) and that meets the requirements and is in compliance with their PAL permit.

§ 3. Minor NSR Source Permits

a. Program Requirements

- (1) No Person shall Beginning Actual Construction of any new Minor NSR Source subject to the provisions of this section without first obtaining a permit to construct.
- (2) No Person shall Beginning Actual Construction on a Modification subject to the provisions of this section without:
 - (a) first obtaining a permit to construct; or
 - (b) if the provisions in §2, paragraph a(3)(a) of this chapter are applicable, obtaining an administrative permit revision pursuant to chapter 1, §9 of this subtitle.

b. Applications

- (1) Applications for permits must include the following information, as applicable:
 - (a) Facility information
 - (i) name of the air pollution source and the nature of the business,
 - (ii) street address, telephone number, and facsimile number of the air pollution source,
 - (iii) contact information, including name, mailing address, telephone number, and email information, for:
 - 1. owner/operator;
 - 2. local individual responsible for compliance with the TIP, if different; and
 - 3. individual authorized to receive requests for data and information, if different;
 - (iv) four digit SIC Code(s) for the Facility;
 - (v) typical Facility operating schedule, including number of hours per day, number of days per week, and number of weeks per year; and
 - (b) a listing of each Emissions Unit including:
 - (i) make and model number;
 - (ii) description of process or function including:
 - 1. type of fuels, including maximum heat input nameplate rating of the unit; and,
 - 2. if applicable, type and maximum estimated quantity of raw materials used or amount of final

- product produced on an annual basis;
 - (iii) any manufacturer provided emission information such as emission factors or other guarantees;
 - (iv) a designation of units that are Emergency Engines (subtitle 12.2, ch. 1, § 3b(6)); and
- (c) Detailed unit specific information for all Affected Emissions Units, including:
- (i) additional fuel usage detail, including the following:
 - 1. sulfur and ash content of the fuel, as applicable;
 - 2. amount of BTUs per gallon, cubic foot, or ton;
 - 3. actual annual usage in gallons, cubic feet, or tons; and
 - 4. solid fuels only, the moisture content;
 - (ii) where the fuel burning device is a boiler:
 - 1. boiler serial number;
 - 2. burner specific information including the manufacturer; burner model number; burner serial number; burner type; potential burner fuel flow rate in gallons per hour, millions of cubic feet per hour, or tons per hour;
 - 3. the actual boiler's nameplate gross heat input rating in millions of BTUs per hour, as affixed by the manufacturer; and
 - 4. type of combustion for the boiler; and
 - (iii) where the fuel burning device is an internal combustion engine or combustion turbine:
 - 1. serial number;
 - 2. potential fuel flow rate;
 - 3. engine output kilowatt or horsepower rating; and
 - 4. reason for use;
 - (iv) for a unit of processing or manufacturing equipment:
 - 1. a brief description of the operational characteristics and history of the device;
 - 2. the process throughput for raw materials, including the following:
 - a. description of raw materials;
 - b. actual and potential amount of raw materials entering the process in pounds per hour; and
 - c. actual annual throughput in tons per year;
 - 3. the process throughput for all coatings and solvents, including the following:
 - a. description of coatings and solvents;
 - b. the percentage of weight of solvents in coatings;
 - c. the reason for use;
 - d. the actual and potential amount utilized in pounds per hour; and
 - e. actual annual usage in tons per year;
 - (v) for storage tanks containing fuel or volatile organic compounds:
 - 1. a brief description of the operational characteristics and history of the storage tank, including the following:
 - a. description of the installation including the dates Construction and operation commenced; and
 - b. location, whether aboveground or underground;
 - 2. a description of the tank, including the following:
 - a. type; height; diameter; roof slope; color; type of insulation;
 - b. if it is heated, the tank temperature;
 - c. if it is lined, the liner type;
 - d. capacity; and throughput;
 - 3. for variable vapor space systems, a description of all shipments made to the tank, including the

following:

- a. the actual number of shipments into the tank per year;
 - b. the actual volume of each shipment;
 - c. the potential volume expansion capability of variable vapor space in gallons; and
 - d. the pressure-vacuum vent settings;
4. liquid information, including the following:
 - a. type; molecular weight;
 - b. average bulk liquid temperature;
 - c. true vapor pressure; and
 - d. average density;
- (vi) stack information, including the following:
 1. the inside diameter at the exit of the stack, in feet, or stack exit area, in square feet;
 2. whether the stack is capped or otherwise restricted;
 3. stack exit orientation;
 4. discharge height above ground level in feet;
 5. exhaust temperature in degrees Fahrenheit;
 6. exhaust flow in actual cubic feet per minute;
 7. exhaust velocity in feet per second;
 8. identification of any other units utilizing the stack;
 9. whether any unit is equipped with multiple stacks;
 10. the type of stack monitoring used if any.
- (vii) a description of the pollution control equipment, if any, and the effect of such equipment, including the following:
 1. description of the pollutants both entering and exiting the control equipment, including the following:
 - a. description of the material;
 - b. temperature of the material in degrees Fahrenheit;
 - c. actual and potential rates of entering emissions in pounds per hour;
 - d. actual and potential rates of annual entering emissions in tons per year; and
 - e. the method used to determine entering emissions;
 2. equipment control and capture efficiency and method of efficiency verification; and
 3. operational characteristics, such as the following:
 - a. volume of gas through the unit;
 - b. temperature of gas through the unit;
 - c. percentage of carbon dioxide and/or oxygen in the gas;
 - d. amount of pressure drop, or water or liquid recycle rate;
 - e. amount of voltage; spark rate; and milliamperes; and
- (viii) a description and characterization unit emissions, including the following:
 1. the Potential to Emit for each Regulated NSR Pollutant and HAP; and
 2. an estimate of the Actual Emissions for each Regulated NSR Pollutant and HAP; including,
 3. all calculations with emission factor utilized and source for that emission factor; and
- (ix) A case-by-case control technology review
 1. For simply packaged units that combust only natural gas or equivalent include a reference, for a similar or identical source, to a previous control technology determination demonstrated acceptable to the MPTN AQP, or which appears in the most current RACT/BACT/LAER clearinghouse publication; otherwise
 2. submit a complete control technology analysis for each Air Pollutant subject to this policy, including but not limited to, secondary and cumulative impacts and cost estimates of all control

options, or the use of innovative technology;

- (d) A description and characterization of the total facility emissions, including the following:
 - (i) type of emissions;
 - (ii) potential pounds per hour and tons per year;
 - (iii) actual pounds per hour and tons per year; and
 - (iv) support data, including the following:
 - 1. a copy of all calculations used in determining emissions;
 - 2. a site plan to scale of the facility showing:
 - a. locations of all emission points;
 - b. dimensions of all buildings, including roof heights;
 - c. the Facility's property boundary; and
 - 3. a copy of the USGS map, properly identified, which shows the facility's location.
 - (e) Air Quality Impact Analysis (AQIA)
 - (i) If the AQP has reason to be concerned that the Construction or Modification of the Minor Source would cause or contribute to a NAAQS violation, it may require the Owner/Operator to conduct and submit an AQIA.
 - (ii) If required, the applicant must conduct the AQIA using the dispersion models and procedures of 40 CFR Part 51, Appendix W, as amended from time to time. Reports must include an electronic submittal of all data input files in a format that is executable utilizing public domain versions of the model algorithm or software approved by the AQP.
 - 1. If CO or NO_x are the pollutants of concern, modeling shall include, at minimum, a screening analysis to demonstrate compliance.
 - 2. If either PM₁₀, PM_{2.5} or SO₂ are the pollutants of concern, a more refined air dispersion modeling analysis will be required to demonstrate compliance with NAAQS.
 - (f) any other information specifically requested by the AQP.
- (2) Certification - all applications, reports and notices must include a certification signed by the Authorized Representative as to the truth, accuracy, and completeness of the information. This certification must state that, based on information and beliefs formed after reasonable inquiry, the statements and information are true, accurate, and complete to the best of his/her knowledge and belief.
 - (3) For New and Existing Sources, the Actual Emissions estimates must be based upon actual test data or, in the absence of such data, upon procedures acceptable to the AQP. Any emission estimates submitted to the AQP must be verifiable using currently accepted engineering criteria. The following procedures, in order of preference, are generally acceptable for estimating emissions from air pollution sources:
 - (a) source-specific emission tests;
 - (b) material/mass balance calculations;
 - (c) published, verifiable, and/or equipment vendor supplied emission factors that are applicable to the source;
 - (d) other engineering calculations; or
 - (e) other procedures to estimate emissions specifically approved by the AQP and authorized by the EPA.

c. Review Criteria

- (1) The AQP shall act on the permit application as expeditiously as possible concluding a completeness review and rendering a final decision within the time periods specified with subtitle 12.4, ch. 2 of this title.
- (2) The AQP will conduct a case-by-case control technology review, described within Appendix I to this title, to determine the appropriate level of control, if any, necessary to assure that NAAQS are achieved.
 - (a) The AQP, when carrying out this case-by-case control technology review, will consider the following factors:
 - (i) local air quality conditions;

- (ii) typical control technology or other emissions reduction measures used by similar sources in surrounding areas;
 - (iii) anticipated economic growth in the area; and
 - (iv) cost-effective emission reduction alternatives.
- (3) If the AQIA reveals that Construction or Modification of your source would cause or contribute to a violation, or interfere with maintenance of, the NAAQS, the AQP must require the applicant to reduce or mitigate such impacts before it can issue a permit.
- (4) Draft permits will be provided to the applicant for comment prior to proceeding with any required public participation procedures stipulated within ch. 1, §5 of this subtitle.
- d. Permit Conditions
 - (1) Permits are issued based on the production/process rate and hours of operation requested in the permit application. The AQP may modify these operational limitations, or any other requested permit condition, to create federally enforceable, Enforceable as a Practical Matter permit conditions.
 - (2) Permits will specify Emission Limitations for each Regulated NSR Pollutant and/or HAP emitted by applicable Affected Emissions Units at the source.
 - (a) Emission Limitations established by the AQP may consist of: numerical limits on the quantity, rate or concentration of emissions; pollution prevention techniques; design standards; equipment standards; work practices; operational standards; requirements relating to the operation or maintenance of the source; or, any combination thereof.
 - (b) The Emission Limitations established by the AQP will:
 - (i) assure that each Affected Emissions Unit will comply with all applicable Emission Standards as well as any other TIP requirements that apply to the unit; and,
 - (ii) not be affected in a manner by so much of a Stack's height as exceeds good engineering practice or by any other dispersion technique, except as provided in 40 CFR §51.118(b), as amended from time to time. If the AQP proposes to issue a permit to a source based on a good engineering practice stack height that exceeds the height allowed by 40 CFR §51.100(ii)(1) or (2), it must make available to the public the demonstration study and provide opportunity for a public hearing according to the requirements of ch. 1, §5d of this subtitle.
 - (c) The Owner/Operator shall take all appropriate actions to prevent emissions which will result in violation of any applicable Emission Limitation Standard.
 - (3) Permits shall contain all the provisions specified within ch. 1, §6 of this subtitle.
- e. Monitoring, Reporting and Recordkeeping
 - (1) Monitoring Requirements - The permit must include monitoring requirements sufficient to assure compliance with the Emission Limitations and annual Allowable Emissions limits that apply to the Affected Emissions Units at the source. The AQP may require, as appropriate, any of the following requirements:
 - (a) direct emissions or parametric monitoring, including analysis procedures, test methods, periodic testing, instrumental monitoring and non-instrumental monitoring. Such monitoring requirements shall assure use of test methods, units, averaging periods and other statistical conventions consistent with the required Emission Limitations; and
 - (b) as necessary, requirements concerning the use, maintenance and installation of monitoring equipment or methods.
 - (2) Recordkeeping Requirements
 - (a) The permit must include recordkeeping requirements sufficient to demonstrate compliance with the monitoring requirements.
 - (b) Records of required monitoring information must include, as appropriate:
 - (i) the location, date and time of sampling or measurements;

- (ii) the date(s) analyses were performed;
 - (iii) the company or entity that performed the analyses;
 - (iv) the analytical techniques or methods used;
 - (v) the results of such analyses; and,
 - (vi) the operating conditions existing at the time of sampling or measurement.
 - (c) All required monitoring data, including support information for the monitoring sample, measurement, report or application, must be retained for a minimum of five (5) years. Support information may include all calibration and maintenance records, all original strip-chart recordings or digital records for continuous monitoring instrumentation and copies of all reports required by the permit.
 - (d) The Owner/Operator shall compile and maintain records of any event that results in a violation of an applicable Emission Limitation or Emissions Standard. Such records must fully describe the cause of the violation and the reason(s) the violation was unavoidable, including:
 - (i) identification of unit or units involved;
 - (ii) date, time and duration of the event;
 - (iii) whether the event was caused by maintenance, malfunction, emergency or other activity;
 - (iv) identification of each limitation or standard exceeded including the specific Air Pollutant(s) involved; and, estimated emission rate during the event; and
 - (v) description of any best management practices employed to limit emissions during the event.
- (3) Reporting Requirements - The permit must include the following reporting requirements.
- (a) Annual submittal of monitoring reports required under paragraph e(1) of this section, including the type and frequency of monitoring and a summary of results obtained by monitoring.
 - (b) Actual Emissions reported must be based upon actual test data or in the absence of such data, upon procedures acceptable to the AQP. Any emission estimates submitted to the AQP must be verifiable using currently accepted engineering criteria. The procedures identified in paragraph b(3) of this section are generally acceptable for estimating emissions from air pollution sources.
 - (c) The Owner/Operator shall report all events that result in a violation of any applicable Emission Limitation or Emission Standard to the AQP. Reports shall contain all information described within paragraph e(2)(d) of this section and any other applicable information to explain the reason(s) the violation was unavoidable.
 - (i) In the event that the violation occurs due to a malfunction, the Owner/Operator shall:
 - 1. Notify the AQP by telephone or electronic mail as soon as possible during normal working hours, but, in any event, not later than two (2) working days after becoming aware that the malfunction occurred, and
 - 2. Within thirty (30) Days thereafter, shall submit a written report to the AQP describing the malfunction. In addition to the monitoring, reporting and recordkeeping requirements specified within the permit, the report shall describe the corrective action(s) taken to correct the malfunction and the steps taken to mitigate the condition(s) which lead to the malfunction.
 - (ii) Depending on the severity of the deviation and the Air Pollutants emitted, the AQP may also require the Owner/Operator to include in the report an estimate of the maximum ground level concentration of each Air Pollutant emitted and the potential effect of such on public health.
 - (iii) Sources with units subject to an Emission Standard that requires continuous stack monitoring and reporting to the Administrator do not need to prepare separate incident reports of monitor malfunction or startup/shutdown conditions for those units but must copy the AQP on all reports provided to the Administrator.

§ 4. General Permits

a. Purpose

- (1) This section specifies the minimum content which must be included when the MPIN AQP issues a general permit to establish permit conditions for similar Minor Sources of Air Pollutants thus eliminating the need

for case-by-case permit development.

- (2) This section also details the procedures required of an Owner or Operator to obtain coverage under a general permit issued by the AQP.

b. Applicability

- (1) The AQP, when issuing a general permit shall comply with the provisions set forth in 47 M.P.T.L. ch. 2, §5b.
- (2) A general permit shall, at minimum contain the information specified within paragraph c. of this section.
- (3) Owners/Operators who require a Minor NSR Source permit under the provisions set forth in §3 of this chapter may alternately seek coverage under a general permit issued by the MPTN AQP provided that:
 - (a) the source type is consistent with that identified within a general permit issued by the MPTN AQP, and
 - (b) the Owner/Operator complies with all provisions established within that general permit.

c. General Permit

A general permit must include the following elements:

- (1) Identification of the specific category of Emissions Units or sources to which the general permit applies, including any criteria that the Emissions Units or source must meet to be eligible for coverage under the general permit.
 - (a) The permit must include the Emission Limitations determined by the AQP under §3d(2) of this chapter for each Affected Emissions Unit.
 - (b) If an Affected Emissions Unit is issued an Enforceable as a Practical Matter Emission Limitation lower than the Potential to Emit of that unit, the permit must include an annual Allowable Emissions limit for each Regulated NSR Pollutant emitted by the unit.
- (2) Information required by applicants requesting coverage under a general permit, including, but not limited to:
 - (a) the name, mailing address and email information of the AQP to whom applications must be submitted;
 - (b) the information that must be provided in your application to demonstrate eligibility for coverage under the general permit; and,
 - (c) other requirements deemed necessary by the AQP.
- (3) The effective date(s) of the general permit and rules concerning renewing coverage under the general permit.
- (4) Monitoring, reporting and recordkeeping specified within §3e of this chapter, as applicable.
- (5) Additional permit provisions as described in ch. 1, §6 of this subtitle, as applicable.
- (6) The fee required for processing the request for general permit coverage as specified within subtitle 12.4, ch. 1 of this title.

d. Procedures for obtaining general permit coverage.

- (1) An Owner/Operator proposing to construct a Minor Source which qualifies for a general permit issued by the AQP, may request program coverage by following the procedures established within the general permit. The AQP shall act on the request for coverage under the general permit as expeditiously as possible concluding a completeness review and rendering a final decision within the time periods specified in subtitle 12.4, ch. 2 of this title.
- (2) The AQP will notify the applicant of the approval or denial for coverage under a general permit.
 - (a) The effective date of the permit coverage shall be the date of the notice.
 - (b) The notice is a final action for purposes of judicial review only for the issue of whether the source qualifies for coverage under the general permit.
 - (c) A copy of an approval notice must be posted in a prominent location at the site where the source is located by the Applicant.
- (3) If the AQP has sent a letter approving the request for coverage under a general permit, the Owner/Operator must comply with all conditions and terms of the general permit. The Owner/Operator will be subject to

enforcement action for failure to obtain a preconstruction permit if he/she constructs the Emissions Unit(s) or source with general permit approval and the source is later determined to not qualify under the conditions and terms of the general permit.

- (4) Any source eligible to request coverage under a general permit may request to be excluded from the general permit by applying for a permit under §3 of this chapter.

§ 5. Synthetic Minor Source Permits

a. Purpose

This section specifies additional requirements for sources seeking Synthetic Minor Source status within a permit issued pursuant to this chapter.

b. Applicability

- (1) This section is applicable to any Owner/Operator of a Stationary Source, which would otherwise be classified as Major NSR Source or Major HAP Source, who wants to request a Synthetic Minor Source permit to establish Emission Limitations that limit the sources PTE to below major source thresholds.
- (2) A source that is issued a permit and becomes a Synthetic Minor Source under this section but remains a Major Source for Title V purposes continues to be subject to the applicable Title V program provisions. In addition, a Synthetic Minor Source is subject to all applicable tribal rules, regulations, Emission Standards and other requirements.

c. Request for Synthetic Minor Source Status

- (1) The Owner/Operator who chooses to request Synthetic Minor Source status shall make such a request within an application for a minor source permit as required by §3 of this chapter.
- (2) In addition to the requirements contained in §3b of this chapter, applications shall include:
 - (a) For each Emissions Unit to be covered by an Emissions Limitation, proposed methods to limit and/or restrict the Potential to Emit of each Regulated NSR Pollutant and/or HAP, including:
 - (i) identification of the Emissions Units;
 - (ii) a detailed description of the production processes;
 - (iii) the proposed Emission Limitation and a description of its effect on Actual Emissions or the Potential to Emit. Emission Limitations must have a reasonably short averaging period, taking into consideration the operation of the source and the methods to be used for demonstrating compliance;
 - (iv) proposed testing, monitoring, recordkeeping and reporting requirements to be used to demonstrate and assure compliance with the proposed limitation;
 - (v) description and estimated efficiency of air pollution control equipment under present or anticipated operating conditions;
 - (vi) estimates of the Allowable Emissions and/or Potential to Emit that would result from compliance with the proposed limitation, including all calculations for the estimates for each emission unit; and
 - (vii) any other information specifically requested by the AQP.
 - (b) Information not otherwise required within §3b(1)(c) for Exempt Minor NSR Emissions Units and activities.
- (3) As part of the application's completeness determination described in §3c(1), the AQP shall reach a determination regarding whether it is appropriate to proceed with the applicant's request for Synthetic Minor Source status.

d. Permit Conditions for Synthetic Minor Sources

- (1) Permits issued to Synthetic Minor Sources shall contain all the provisions specified within §3d of this chapter for minor source permits, and the additional provisions as described in ch. 1, §6 of this subtitle.
- (2) In addition, all Synthetic Minor Source permits shall contain the following conditions:

- (a) All conditions which restrict a source's Potential to Emit to below major source thresholds (enabling it to become a Synthetic Minor Source) shall be in the form of Emission Limitations as defined within ch. 1, §3b(7) of this subtitle
- (b) In addition to the reporting requirements specified within §3e(3) of this chapter, permits may require that emission reports include the following information:
 - (i) Source level information, consisting of:
 1. verification of full name of Facility;
 2. verification of parent company name;
 3. verification of street address (physical location) of the Facility;
 4. verification of four digit SIC Plan(s) for the Facility;
 5. calendar year reportable emissions;
 6. total Facility fuel use and fuel sulfur content and heat value (for combustion installations); and,
 7. Fugitive Emissions.
 - (ii) Emission point level information, consisting of:
 1. average hours of operation per day;
 2. weeks of operation per year (seasonal and annual);
 3. hours of operation per year;
 4. percentage annual throughput (percentage of annual activity by season); and,
 5. verification of latitude and longitude and/or UTM coordinates.
 - (iii) Process level information, consisting of:
 1. maximum heat input (for combustion installations);
 2. quantity of fuels consumed (for combustion installations);
 3. estimated actual annual reportable emissions, for each Regulated NSR Pollutant and/or HAP emitted, (in units of pounds per year);
 4. estimated emissions method;
 5. emission factor(s) (if used to determine Actual Emissions);
 6. primary and secondary control equipment identification plan(s);
 7. control efficiencies achieved by the control equipment;
 - a. the control efficiency should reflect the total control efficiency from all control equipment for a specific criteria group (e.g., VOCs and NO_x).
 - b. if the actual control efficiency is unavailable, the design efficiency or the control efficiency limit imposed by a permit shall be used; and,
 8. annual process rate.
 - (iv) Petroleum, volatile organic liquid, and fuel storage and distribution facilities must provide the following additional information:
 1. tank capacity (including maximum and average liquid height, and working volume); and,
 2. throughput associated with tanks and loading racks (including turnovers per year).
- (c) Certification - all emission reports required pursuant to paragraph (b) above shall include a certification signed by the Authorized Representative as to the truth, accuracy, and completeness of the information. This certification must state that, based on information and belief formed after reasonable inquiry, the statements and information are true, accurate, and complete to the best of his/her knowledge and belief.

e. Public Notice

In addition to the information required in subtitle 2.1, §5b(2), the public notice shall include a description of the proposed Emission Limitations and their effect on the Potential to Emit of the source.

CHAPTER 3. NON-ATTAINMENT MAJOR NEW SOURCE REVIEW

§ 1. Program

- a. The purpose of this part is to implement the Nonattainment Major New Source Review (NNSR) program as set forth in §§171 through 193 of the Clean Air Act (42 U.S.C. §§ 7501-7515).
 - (1) It requires that Major NSR Sources subject to this program comply with the provisions and requirements of 40 CFR Part 51, Appendix S (Appendix S) and, as specified in §7 of this Chapter, the requirements of §173(c)(1) of the Clean Air Act (42 U.S.C. § 7503(c)(1)).
 - (2) Additionally, it establishes that the AQP will use the criteria and procedures stipulated within Appendix S to issue, administer and enforce permits subject to this chapter.
- b. While some of the important provisions of Appendix S are paraphrased in various paragraphs of this chapter to highlight them, the provisions of Appendix S, as may be amended from time to time, are hereby incorporated by reference.
- c. For the purposes of this chapter, the term SIP as used in Appendix S means this Tribal Implementation Plan (TIP) and the term “State” shall mean the Tribe (Mashantucket Pequot Tribal Nation), Tribal or, as applicable, Mashantucket.

§ 2. Applicability

- a. The provisions of this chapter apply to new Major NSR Sources and Major Modifications if, for the applicable Regulated NSR Pollutant evaluated, Mashantucket is currently designated as a Nonattainment Area under 40 CFR §81.307.
 - (1) Whether a project constitutes a Major Modification shall be determined by the provisions established in paragraphs IV.I.1(i) through (v) of Appendix S.
 - (2) A project that was determined not to be a part of a Major Modification is subject to the provisions specified within Appendix S paragraph IV.J. if:
 - (a) the Owner/Operator had elected to use the method specified in paragraphs II.A.24(ii)(a) through (c) of Appendix S to calculate Projected Actual Emissions; and,
 - (b) there is a Reasonable Possibility, as defined in paragraph IV.J.6, that the project may result in a Significant Emissions Increase of such pollutant.
- b. If a Source or Modification is determined to be a Major NSR Source or Major Modification solely by virtue of a relaxation in any enforceable limitation established on the capacity of the Source or Modification otherwise to emit a pollutant, such as a restriction of hours of operation, then the provisions of this chapter shall apply to the Source or Modification as though Construction had not yet Commenced on the Source or Modification.
- c. The provisions of this chapter are also applicable to existing Major NSR Sources that seek to establish a Plantwide Applicability Limit (PAL).

§ 3. Definitions

- a. For the purposes of this chapter the definitions contained in paragraphs II.A. and IV.K.2 of Appendix S shall apply except that, where it occurs, the word “State” shall be replaced by the word “Tribe,” “Tribal,” or “Mashantucket” as applicable.
- b. For the purpose of this chapter, the following additional definitions shall apply:
 - (1) “Major NSR Source” means, for the purpose of this chapter, Major Stationary Source as defined at 40 CFR Part 51, Appendix S, paragraph II.A.4.
 - (2) “Northeast Ozone Transport Region” means, pursuant to Part D, Subpart 2, Section 184(a) of the Act (42 U.S.C §7511c(a)), the geographical area comprising of the states of:
 - (a) Connecticut;
 - (b) Delaware;
 - (c) Maine;

- (d) Maryland;
- (e) Massachusetts;
- (f) New Hampshire;
- (g) New Jersey;
- (h) New York;
- (i) Pennsylvania;
- (j) Rhode Island;
- (k) Vermont; and
- (l) The Consolidated Metropolitan Statistical Area that includes the District of Columbia;

(3) [Reserved]

§ 4. Program requirements

- a. Owners or Operators seeking to construct or modify a source subject to the applicability of this chapter must obtain a permit as specified within this chapter prior to Commencement of Construction of the project.
 - (1) If you Begin Actual Construction without applying for and receiving a permit pursuant to this section, you will be subject to appropriate enforcement action.
 - (2) If you do not construct or operate your source or Modification in accordance with the terms of your major NSR permit issued under this chapter you will be subject to appropriate enforcement action.
 - (3) Issuance of a permit under this chapter does not relieve any owners or operators of the responsibility to comply fully with applicable provisions of this TIP and any other applicable requirements under Tribal or Federal law.
- b. The owner or operator of an existing Major NSR Source with a Plantwide Applicability Limit (PAL) shall comply with the provisions of its PAL.

§ 5. Program administration

- a. The MPTN AQP will issue, administer and enforce permits subject to this chapter by following the provisions stipulated within 40 CFR Part 51, Appendix S.
- b. In accordance with section 173(a)(4) of the Act (42 U.S.C. § 7503(a)(4)), the AQP shall not issue a permit or permits to a Stationary Source to which the requirements of this part apply if the Administrator has determined that the applicable implementation plan is not being adequately implemented for the Nonattainment Area in which the proposed source is to be constructed or modified.

§ 6. Permits

- a. Applications
 - (1) Nonattainment NSR and Plantwide Applicability Limit (PAL) permit applications required under this chapter shall be submitted in accordance with the requirements contained in Chapter 2, §3b and §5c(2) of this title.
 - (2) In addition, an application for a nonattainment NSR permit shall contain all information necessary for the AQP to reach a conclusion that all the approval criteria described in paragraph b of this section are satisfied, in particular:
 - (a) A control technology evaluation to demonstrate that any new major Stationary Source or Major Modification will meet the LAER for all new or modified emission units;
 - (b) A documented plan to obtain creditable emission reduction offsets in accordance with §7 of this chapter;
 - (c) A demonstration showing that all Stationary Sources in Mashantucket, which are owned or operated by such person or any entity controlling, controlled by, or under common control with such person, are subject to Emission Limitations and are in compliance, or are on a schedule for compliance which is federally enforceable or contained in a court decree, with all applicable Emission Limitations and standards under the Act; and

- (d) A demonstration showing that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, Construction, or Modification by providing an analysis of alternative sites, sizes, production processes, and environmental control techniques in accordance with section 173(a)(5) of the Act (42 U.S.C. § 7503(a)(5)).
 - (3) In addition, an application for a permit to establish a PAL shall contain the information required pursuant to Appendix S, paragraph IV.K.3.
- b. Review Criteria
 - (1) The general review criteria for permits are provided in Appendix S, paragraph II.B. In summary, that paragraph basically requires the Reviewing Authority to ensure that the proposed new Major NSR Source or Major Modification would meet all applicable emission requirements in this TIP, any currently applicable New Source Performance Standard in 40 CFR part 60 and any applicable national Emission Standards for Hazardous Air Pollutants in 40 CFR part 61 or part 63, in all cases as amended from time to time, before a permit can be issued.
 - (2) The approval criteria or conditions for obtaining a permit under this chapter for Major NSR Sources and Major Modifications are given in part 51, Appendix S, paragraph IV.A. In summary, the requirements are as follows:
 - (a) the lowest achievable emission rate (LAER) requirement for any NSR pollutant subject to this chapter;
 - (b) certification that all sources owned or operated by the applicant within Mashantucket are in compliance or under a compliance schedule;
 - (c) emissions reductions (offsets) requirement, subject to the provisions of Appendix S, paragraph IV.C, for any source or Modification subject to this program;
 - (d) a demonstration that the emission offsets will provide a net air quality benefit in the affected area; and
 - (e) an analysis of alternative sites, sizes, production processes and environmental control techniques for such proposed source that demonstrates that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, Construction or Modification.
- c. Emission offset requirement exemption
 - (1) Pursuant to section 173(a)(1)(B) of the Act (42 U.S.C. § 7503(a)(1)(B)), under which Major NSR Sources and Major Modifications may be exempted from the offset requirement if they are located in a zone targeted for economic development by the Administrator, in consultation with the Department of Housing and Urban Development (HUD), the MPTN Tribal Council body may seek an exemption from the emission offset requirement (paragraphs b(2)(c) and (d) of this section).
 - (2) In such a situation the AQP could waive the offset requirement for sources and Modifications, provided that:
 - (a) Mashantucket meets the criteria for an economic development zone (EDZ) and the Administrator has approved a request from the Tribe and declared the area an EDZ, and
 - (b) the Tribe demonstrates that the new permitted emissions are consistent with the achievement of reasonable further progress pursuant to section 172(c)(4) of the Act (42 U.S.C. § 7502(c)(4)), and will not interfere with attainment of the applicable NAAQS by the applicable attainment date.

§ 7. Emissions Offsets

- a. Procedures for determining the baseline for emission and air quality offsets is established within Appendix S, paragraph IV.C.
- b. Emissions offsets shall be obtained from offset sources that are located within the same Nonattainment Area, the Greater Connecticut, CT area of which Mashantucket is within, or within another area provided that:
 - (1) the area the offset source is located is of equal or higher nonattainment classification, and,
 - (2) the owner or operator demonstrates that the emissions from that Nonattainment Area, in which the offset source is located, contribute to a violation of the national ambient air quality standard in the Nonattainment Area in which the new or modified source is seeking to locate.

- c. Offsets must be in effect, be ensured by a federally enforceable permit or other federally enforceable document, prior to Commencing Construction and
- d. The required offset ratios are specified within Appendix S, paragraph IV.G.

§ 8. Establishing a PAL

A PAL shall be established, re-opened, renewed, increased, monitored, recorded, and reported in accordance with Appendix S, paragraph IV.K., except that the public participation requirements at paragraph IV.K.5 shall be replaced by §9 of this chapter.

§ 9. Public Participation

- a. This paragraph provides the Public participation procedures, in addition to those provided in ch. 1, §5 of this subtitle, which the AQP must follow prior to the issuance of a permit pursuant to this section.
- b. The AQP shall provide a copy of the public notice to the state and local air pollution control agencies in the affected air quality control region (here, the Connecticut Air Quality Control Region);
- c. The AQP shall make available, regardless of request, either at the Tribal environmental office, a local library or via posting to a publically accessible Web site, the public record. In addition to the content specified in ch. 1, §5e of this subtitle, the public record shall include:
 - (1) the AQP's analysis of the application and any additional information submitted by the applicant, including the LAER analysis and, where applicable, the analysis of emissions reductions (offsets), demonstration of a net air quality benefit in the affected area and analysis of alternative sites, sizes, production processes and environmental control techniques;
 - (2) a copy of the draft permit or the decision to deny the permit with the justification for denial; and
 - (3) all other information described within this section as being part of the administrative record.
- d. The AQP must address all comments in making the final decision.
 - (1) Any person may submit written comments on the draft permit and may request a public hearing. These comments must raise any reasonably ascertainable issue with supporting arguments by the close of the public comment period (including any public hearing).
 - (2) The AQP must keep a record of the commenters and of the issues raised during the public participation process and such records must be available to the public.
- e. The AQP must hold a hearing whenever there is, on the basis of requests, a significant degree of public interest in a draft permit. The AQP may also hold a public hearing at its discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision.
 - (1) The AQP must provide notice of any public hearing at least 30 days prior to the date of the hearing.
 - (2) Public notice of the hearing may be concurrent with that of the draft permit and the two notices may be combined.
 - (3) Reasonable limits may be set upon the time allowed for oral statements at the hearing.
 - (4) The AQP must make a tape recording or written transcript of any hearing available to the public.

§ 10. Permit Issuance

- a. If the permit is denied, the reasons for such denial and the procedures for appeal, as outlined in subtitle 12.4, ch. 3, shall be provided in writing.
- b. If the AQP issues a final permit, it shall provide it to the permittee and make a copy of the permit available at any location where the draft permit was made available.
 - (1) In addition, the AQP must provide adequate public notice of the final permit decision to ensure that the affected community, general public and any individuals who commented on the draft permit have reasonable

access to the decision and supporting materials.

- (2) A final permit becomes effective 30 days after service of notice of the final permit decision, unless:
 - (a) a later effective date is specified in the permit;
 - (b) review of the final permit is requested under subtitle 12.4, ch. 3, §1b(2), in which case the specific terms and conditions of the permit that are the subject of the request for review must be stayed; or
 - (c) the draft permit was subjected to a public comment period and no comments requested a change in the draft permit or a denial of the permit, in which case the AQP may make the permit effective immediately upon issuance.

§ 11. Administrative Record

- a. The AQP must base final permit decisions on an administrative record consisting of:
 - (1) all comments received during any public comment period, including any extension or reopening;
 - (2) the tape or transcript of any hearing(s) held;
 - (3) any written material submitted at such a hearing;
 - (4) any new materials placed in the record as a result of the AQP's evaluation of public comments;
 - (5) other documents in the supporting files for the permit that were relied upon in the decision-making;
 - (6) the final permit;
 - (7) the application and any supporting data furnished by the permit applicant;
 - (8) the draft permit or notice of intent to deny the application or to terminate the permit; and
 - (9) other documents in the supporting files for the draft permit that were relied upon in the decision-making.
- b. The additional documents required under paragraph a. of this section should be added to the record as soon as possible after their receipt or publication by the Reviewing Authority. The record must be complete on the date the final permit is issued.
- c. Material readily available or published materials that are generally available and that are included in the administrative record under the standards of paragraph a of this section need not be physically included in the same file as the rest of the record as long as it is specifically referred to in that file.
- d. The AQP shall retain this administrative record for a period of not less than five (5) years.

CHAPTER 4. PREVENTION OF SIGNIFICANT DETERIORATION

§ 1. Program

- a. The purpose of this part is to implement the prevention of significant deterioration (PSD) program, as set forth in Sections 160 through 169B of the Act (42 U.S.C. §§ 7470-7492).
 - (1) It requires that Major NSR Sources subject to this program comply with the provisions and requirements of 40 CFR §52.21.
 - (2) Additionally, it establishes that the AQP will use the criteria and procedures stipulated within §52.21 to issue, administer and enforce permits subject to this chapter.
- b. Pursuant to 40 CFR §52.21(g)(1) Mashantucket shall be considered a Class II area.
- c. While some of the important provisions of 40 CFR §52.21 are paraphrased in various paragraphs of this chapter to highlight them, the provisions of 40 CFR §52.21 are hereby incorporated by reference, as may be amended from time to time.
- d. The following paragraphs of 40 CFR §52.21 do not apply for the purposes of this program: Paragraph (a)(1); Paragraph (g); Paragraph (s); Paragraph (t); and Paragraph (u).

e. For the purposes of this chapter, the term “Reviewing Authority” shall replace the word “Administrator” in the paragraphs of 40 CFR §52.21, except in the following paragraphs: Paragraph (b)(17); Paragraph (b)(37)(i); Paragraph (b)(43); Paragraph (b)(48)(ii)(c); Paragraph (b)(50)(i); Paragraph (b)(51); Paragraph (l)(2); and Paragraph (v).

f. For the purposes of this chapter, the term “State implementation plan” as used in 40 CFR §52.21 means this Tribal Implementation Plan (TIP) and the term “State” shall mean the Tribe (Mashantucket Pequot Tribal Nation), Tribal or, as applicable, Mashantucket.

§ 2. Applicability

a. The provisions of this chapter apply to new Major NSR Sources or Major Modifications if, for the applicable Regulated NSR Pollutant evaluated, Mashantucket has been designated as attainment or unclassifiable under 40 CFR §81.307.

- (1) Whether a project constitutes a Major Modification shall be determined by the provisions established in 40 CFR §52.21 paragraph (a)(2)(iv).
- (2) A project that was determined not to be a part of a Major Modification is subject to the provisions specified within §52.21 paragraph (r)(6) if:
 - (a) the Owner/Operator had elected to use the method specified in paragraphs (b)(41)(ii)(a) through (c) of §52.21 to calculate Projected Actual Emissions; and
 - (b) there is a Reasonable Possibility, as defined in paragraph (r)(6)(vi), that the project may result in a Significant Emissions Increase of such pollutant.

b. If a Source or Modification is determined to be a Major NSR Source or Major Modification solely by virtue of a relaxation in any enforceable limitation established on the capacity of the Source or Modification otherwise to emit a pollutant, such as a restriction of hours of operation, then the provisions of this chapter shall apply to the Source or Modification as though Construction had not yet Commenced on the Source or Modification.

c. The provisions of this chapter are also applicable to existing Major NSR Sources that seek to establish a Plantwide Applicability Limit (PAL).

d. This part shall not apply to a Major NSR Source or Major Modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or Modification is located in an area designated as nonattainment under 40 CFR §81.307.

§ 3. Definitions

a. For the purpose of this chapter, the definitions contained in 40 CFR §52.21 paragraphs (b) through (aa)(2), shall apply with the following revisions.

- (1) The term “State” shall mean the Tribe (Mashantucket Pequot Tribal Nation), Tribal or, as applicable, Mashantucket.
 - (2) The definition of “potential to emit” in 40 CFR §52.21(b)(4) shall include the phrase “or enforceable as a practical matter” at the end of the second sentence; and
 - (3) The term “intrastate area,” as used within paragraph (b)(15) of §52.21, shall mean the area within the exterior boundaries of Mashantucket.
 - (4) The definition of “allowable emissions” in 40 CFR §52.21(b)(16) shall not include the word “federally”.
- b. For the purpose of this chapter, the following additional definitions shall apply:
- (1) “Major NSR Source” means, for the purpose of this chapter, Major Stationary Source as defined at 40 CFR §52.21(b)(1).
 - (2) [Reserved]

§ 4. Program requirements

- a. Owners or Operators seeking to construct or modify a source subject to the applicability of this chapter must obtain a permit as specified within this chapter prior to Commencement of Construction of the project.
 - (1) If you Begin Actual Construction without applying for and receiving a permit pursuant to this section, you will be subject to appropriate enforcement action.
 - (2) If you do not construct or operate your source or Modification in accordance with the terms of your major NSR permit issued under this section you will be subject to appropriate enforcement action.
 - (3) Issuance of a permit under this chapter does not relieve any owners or operators of the responsibility to comply fully with applicable provisions of this TIP and any other applicable requirements under Tribal or Federal law.
- b. The owner or operator of an existing Major NSR Source with a Plantwide Applicability Limit (PAL) shall comply with the provisions of its PAL.

§ 5. Permits

- a. Applications
 - (1) PSD and Plantwide Applicability Limit (PAL) permit applications required under this chapter shall be submitted in accordance with the requirements contained in Chapter 2, §3b and §5c(2) of this title.
 - (2) In addition, an application for a PSD permit shall contain all information as follows:
 - (a) a control technology evaluation, in accordance with 40 CFR §52.21(j), to demonstrate that any new major Stationary Source or Major Modification will meet the BACT for all new or modified Emissions Units;
 - (b) a source impact analysis, in accordance with 40 CFR §52.21(k)(1);
 - (c) an air quality analysis in accordance with 40 CFR §52.21(m);
 - (d) source information required in accordance with 40 CFR §52.21(n);
 - (e) additional impact analyses required pursuant to 40 CFR §52.21(o); and
 - (f) a demonstration showing that all Stationary Sources in Mashantucket, which are owned or operated by such person or any entity controlling, controlled by, or under common control with such person, are subject to Emission Limitations and are in compliance, or are on a schedule for compliance which is federally enforceable or contained in a court decree, with all applicable Emission Limitations and standards under the Act; and
 - (3) In addition, an application for a permit to establish a PAL shall contain the information required pursuant to 40 CFR §52.21, paragraph (aa)(3).
- b. Review Criteria

A permit application to comply with PSD or to establish a PAL filed with the AQP pursuant to this chapter shall be reviewed in accordance with the criteria set forth in 40 CFR §52.21(j) – (p).

§ 6. Program administration

- a. The MPTN AQP will issue, administer and enforce permits subject to this chapter by following the provisions stipulated within 40 CFR §52.21.
- b. Permits issued shall state that the Major NSR Source or Major Modification will meet the requirements of 40 CFR §52.21 paragraphs (j) through (r)(5), except paragraph (q).

§ 7. Increment Consumption

- a. The AQP shall periodically perform a review of increases in pollutant concentrations over the Baseline Concentration, as that term is defined in 40 CFR §52.21(b)(13), to determine whether the ambient air increments, as established in 40 CFR §52.21(c), have been violated within Mashantucket.
- b. Within 60 days of the discovery of a violation of an ambient air increment, as established in 40 CFR §52.21(c), the

AQP shall submit to the Administrator a plan for insuring that the violation shall be mitigated as soon as possible.

§ 8. Establishing a PAL

A PAL shall be established, re-opened, renewed, increased, monitored, recorded, and reported in accordance with 40 CFR §52.21, paragraph (aa), except that the public participation requirements shall be replaced by §9 of this chapter.

§ 9. Public Participation

a. This paragraph provides the Public participation procedures, in addition to those provided in ch. 1, §5, which the AQP must follow prior to the issuance of a permit pursuant to this section.

b. The AQP shall provide a copy of the public notice to the state and local air pollution control agencies in the affected air quality control region (here, the Connecticut Air Quality Control Region);

c. The AQP shall make available, regardless of request, either at the Tribal environmental office, a local library or via posting to a publically accessible Web site, the public record. In addition to the content specified in ch. 1, §5e of this subtitle, the public record shall include:

- (1) the AQP's analysis of the application and any additional information submitted by the applicant, including the BACT analysis and, where applicable, the degree of increment consumption that is expected from the source or Modification, and analysis of the effect of the proposed facility on air quality;
- (2) a copy of the draft permit or the decision to deny the permit with the justification for denial; and
- (3) all other information described within this section as being part of the administrative record.

d. The AQP must address all comments in making the final decision.

- (1) Any person may submit written comments on the draft permit and may request a public hearing. These comments must raise any reasonably ascertainable issue with supporting arguments by the close of the public comment period (including any public hearing).
- (2) The AQP must keep a record of the commenters and of the issues raised during the public participation process and such records must be available to the public.

e. The AQP must hold a hearing whenever there is, on the basis of requests, a significant degree of public interest in a draft permit. The AQP may also hold a public hearing at its discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision.

- (1) The AQP must provide notice of any public hearing at least 30 days prior to the date of the hearing.
- (2) Public notice of the hearing may be concurrent with that of the draft permit and the two notices may be combined.
- (3) Reasonable limits may be set upon the time allowed for oral statements at the hearing.
- (4) The AQP must make a tape recording or written transcript of any hearing available to the public.

§ 10. Permit Issuance

a. If the permit is denied, the reasons for such denial and the procedures for appeal, as outlined in subtitle 12.4, ch. 3, shall be provided in writing.

b. If the AQP issues a final permit, it shall provide it to the permittee and make a copy of the permit available at any location where the draft permit was made available.

- (1) In addition, the AQP must provide adequate public notice of the final permit decision to ensure that the affected community, general public and any individuals who commented on the draft permit have reasonable access to the decision and supporting materials.
- (2) A final permit becomes effective 30 days after service of notice of the final permit decision, unless:
 - (a) a later effective date is specified in the permit;

- (b) review of the final permit is requested under subtitle 12.4, ch. 3, §1b(2), in which case the specific terms and conditions of the permit that are the subject of the request for review must be stayed; or
- (c) The draft permit was subjected to a public comment period and no comments requested a change in the draft permit or a denial of the permit, in which case the AQP may make the permit effective immediately upon issuance.

§ 11. Administrative Record

- a. The AQP must base final permit decisions on an administrative record consisting of:
 - (1) all comments received during any public comment period, including any extension or reopening;
 - (2) the tape or transcript of any hearing(s) held;
 - (3) any written material submitted at such a hearing;
 - (4) any new materials placed in the record as a result of the AQP's evaluation of public comments;
 - (5) other documents in the supporting files for the permit that were relied upon in the decision-making;
 - (6) the final permit;
 - (7) the application and any supporting data furnished by the permit applicant;
 - (8) the draft permit or notice of intent to deny the application or to terminate the permit; and,
 - (9) other documents in the supporting files for the draft permit that were relied upon in the decision-making.
- b. The additional documents required under paragraph a. of this section should be added to the record as soon as possible after their receipt or publication by the Reviewing Authority. The record must be complete on the date the final permit is issued.
- c. Material readily available or published materials that are generally available and that are included in the administrative record under the standards of paragraph a of this section need not be physically included in the same file as the rest of the record as long as it is specifically referred to in that file.
- d. The AQP shall retain this administrative record for a period of not less than five (5) years.

SUBTITLE 12.3 OPERATING PERMITS

CHAPTER 1. GENERAL PROVISIONS

§ 1. Scope

This subtitle establishes requirements for Stationary Sources operating within Mashantucket.

- (1) It establishes Source registration requirements to ensure facility compliance and facilitate maintenance of Mashantucket's emission inventory.
- (2) It establishes a non-Title V Source operating permit program to ensure that Sources, that otherwise would not require a permit, comply with any applicable Emissions Standard requirements.
- (3) It specifies the provisions applicable to Title V Sources required to obtain permits to operate consistent with the requirements of Title V of the Act (42 U.S.C. 7401 et seq.) and defines the Reviewing Authority who will administer the Title V program within Mashantucket.

§ 2. Applicability

Requirements stated within this subtitle are applicable to any Person who owns, operates or seeks to construct or modify a Stationary Source of Air Pollutants within Mashantucket.

- (1) All Stationary Sources are required to maintain an up-to-date registration of Emission Units in accordance with chapter 2 of this subtitle.
- (2) All Stationary Sources or Modifications subject to an applicable Emissions Standard must obtain a permit to operate pursuant to chapter 3 of this subtitle, unless:
 - (a) a New Source Review permit is required pursuant to subtitle 12.2;
 - (b) a Title V permit is required pursuant to chapter 4 of this subtitle; or
 - (c) none of the applicable Emission Standards require post-construction compliance testing and/or reporting (not including simple notification requirements).
- (3) Stationary Sources required to obtain an operating permit pursuant to Title V of the federal Clean Air Act (42 U.S.C. §§ 7661 to 7661f, incl.) must obtain a Title V permit in accordance with chapter 4 of this subtitle. This obligation is applicable regardless of the Source having previously obtained a New Source Review Permit pursuant to subtitle 12.2.

§ 3. Definitions

- a. Unless noted within this subtitle definitions previously defined within this title are applicable.
- b. As used in this subtitle, all terms not defined herein will have the meaning given them within the Clean Air Act.
 - (1) For sources of Regulated NSR Pollutants in Attainment or Unclassifiable Areas, the definitions in 40 CFR §52.21 apply to the extent that they are used in this subtitle.
 - (2) For sources of Regulated NSR Pollutants in Nonattainment Areas, the definitions in 40 CFR Part 51, Appendix S, paragraph II.A apply to the extent that they are used in this subtitle.
 - (3) For sources of HAP, the definitions in 40 CFR §63.2 apply to the extent that they are used in this subtitle.
 - (4) For Title V Sources, the definitions in 40 CFR §71.2 apply to the extent that they are used in this subtitle.
- c. The following definitions apply to this chapter.
 - (1) "Post Operational Requirements" mean, in context of an Emission Standard, requirements stated within an applicable standard other than:
 - (a) pre-operational conditions - conditions that apply to purchase or installation – (e.g. installation of a non-resettable hour meter for generators); and
 - (b) requirements involving notification only (e.g. notification to the Administrator of first fire).

- (2) "Title V Source" means a Stationary Source required to obtain an operating permit, as specified within chapter 4, § 2 of this title, pursuant to Title V of the federal Clean Air Act (42 U.S.C. §§ 7661 to 7661f, incl.).

CHAPTER 2. MINOR SOURCE REGISTRATIONS

§ 1. Purpose

The purpose of this section is to establish reporting requirements and procedures for sources that have not otherwise applied for a permit as specified within this Title.

§ 2. Applicability

a. The Owner/Operator of an Existing Source must, no later than 90 Days after being requested by the AQP, file an initial registration.

- (1) Within its request, the AQP shall provide all Source specific information currently within MPTN's emission inventory.
- (2) The Owner/Operator must review, correct, and if necessary, supplement the information provided, in accordance with §3 of this chapter, and return it to the AQP.
- (3) The AQP may extend the time period to file an initial registration by an additional 90 Days if requested.

b. The Owner/Operator of a proposed New Source or a proposed Modification at an Existing Source, which is otherwise not required to obtain a permit pursuant to this Title, must provide all the source specific information specified within §3 of this chapter when applying to the MPTN Land Use Commission (LUC) for a permit.

- (1) 14 M.P.T.L. ch. 5, §1, requires that all Land Use Activities obtain a permit from the LUC prior to Commencing the activity.
- (2) 14 M.P.T.L. ch. 2, §1(b)(18) defines a Land Use Activity as including activities with the potential to impact natural resources including discharges to air and projects with the potential to cause the release of a polluting substance.
- (3) The LUC representative for the Natural Resources Protection discipline shall provide the AQP (if different entities) with all information submitted to the LUC pertinent to this Title and shall cast a veto vote for any LUC permit application involving an Emission Unit whenever the information specified in paragraph c. of this section is not provided.
- (4) Pursuant to 14 M.P.T.L. chapter 6, §1, all work permitted by the LUC shall be completed in accordance with plans, specifications and submittals approved by the LUC. Changes require the Commission's review and approval before the work proceeds. Minor changes, such as make and model of Emission Units specified, may be authorized by the Natural Resources Protection discipline following review by the AQP (if different entities). Significant and material changes require a formal modification of the LUC permit as described within 14 M.P.T.L. ch. 6, §3.
- (5) Unapproved changes to the project may result in issuance of an enforcement order and/or penalties as specified within 14 M.P.T.L. and/or 47 M.P.T.L.

c. Owners/Operators of an Existing Source seeking to undertake a Modification that will make the source subject to the New Source Review requirements specified in subtitle 12.2 shall not Begin Actual Construction without obtaining the relevant air permit.

§ 3. Registrations

a. Registrations shall include the following applicable information:

- (1) Facility information including:

- (a) name of the Stationary Source (Facility) and the nature of the business;
- (b) street address, mailing address, telephone and email contact information for the following:
 - (i) Stationary Source (Facility);
 - (ii) Owner/Operator;
 - (iii) individual responsible for compliance with this title; and
 - (iv) any other individuals to contact in case additional information is required;
 - (v) the Facility's typical operating schedule, including number of hours per day, number of days per week, and number of weeks per year; and
- (2) a listing of each Emission Unit including:
 - (a) make and model number;
 - (b) description of process or function including:
 - (i) type of fuels, including maximum heat input nameplate rating of the unit; and,
 - (ii) if applicable, type and maximum estimated quantity of raw materials used or amount of final product produced on an annual basis;
 - (c) any manufacturer provided emission information such as emission factors or other guarantees;
 - (d) a designation of units that are Emergency Engines as defined in subtitle 12.2, ch. 1, § 3b(6); and
 - (e) a description of any air pollution control equipment including make and model, and the stated reduction efficiency for each pollutant controlled.
 - (f) any other information specifically requested by the AQP.
- b. Relocation
 - (1) After initial registration, the Owner/Operator of an air pollution source must report any relocation of an emission source to the AQP in writing no later than ten (10) days following the relocation of the source.
 - (2) The report must update the information required in paragraph a. of this section if it will change as a result of the relocation.
 - (3) Submitting a report of relocation does not relieve the Owner/Operator from the requirement to obtain:
 - (a) a New Source Review permit prior to Beginning Actual Construction if the relocation of the air pollution source would be a New Source or Modification subject to subtitle 12.2 of this title.
 - (b) a Land Use permit pursuant to 14 M.P.T.L. ch. 5, §1.
- c. Report of Closure

After initial registration, except for regular seasonal closures, the Owner/Operator of an air pollution source must submit a report of closure to the AQP in writing within ninety (90) Days after the cessation of all operations at the air pollution source.

CHAPTER 3. NON-TITLE V OPERATING PERMITS

§ 1. Purpose

This chapter establishes an operating permit program to ensure that Sources subject to an Emission Standard with Post Operational Requirements are aware of their on-going compliance obligations. It establishes a mechanism for the AQP to confirm a Sources fulfillment of those obligations.

§ 2. Applicability

- a. Owners/Operators of a Stationary Source that is, or will become, subject to an Emissions Standard with Post Operational Requirements must have a permit that details those obligations.
- b. Owners/Operators with a valid New Source Review permit pursuant to subtitle 12.2, or are required to obtain a Title V permit, pursuant to chapter 4 of this subtitle:

- (1) are not required to obtain a separate permit under this chapter; however,
 - (2) are required to obtain an Administrative Revision to their permit, pursuant to this chapter, any time that the facility, or units within that facility, become subject to an Emissions Standard with Post Operational Requirements and a new permit or permit revision is otherwise not required.
- c. Permits, or permit revisions, must be obtained prior to the first applicable compliance date specified within any applicable Emission Standard (typically the initial notice to be filed with the Administrator).

§ 3. General Permits

Owners/Operators who are required to obtain a permit pursuant to this chapter may alternately seek coverage under one or more general permits issued pursuant to subtitle 12.2, ch. 2, §4 provided that:

- (1) the source type for each applicable Emission Standard is consistent with that identified within a general permit issued by the MPTN AQP, and
- (2) the Owner/Operator complies with all provisions established within that general permit.

§ 4. Applications

- a. Applications for permits to operate shall include all information specified within subtitle 12.2, ch. 2, §3 paragraph b of this title except that the following is not required:
- (1) the case-by-case control technology review specified within paragraph b(1)(c)(ix) of that section; and
 - (2) the Air Quality Impact Analysis outlined in paragraph b(1)(e) of that section.
- b. Applications submitted without the permit application fee, specified within subtitle 12.4, chapter 1 of this title, shall not be deemed as received until the fee is received.
- c. Each application shall include a certification signed by the Authorized Representative as to the truth, accuracy, and completeness of the information. This certification must state that, after reasonable inquiry, the statements and information are true, accurate, and complete to the best of his/her knowledge and belief.
- d. Applications for revised permits
- (1) Applications shall also include an itemized list, with dates submitted to the AQP and/or Administrator, of all test data, monitoring reports and monitoring plans required during the term of the existing permit.
 - (2) The application shall also detail any additions or changes that have occurred at the facility during the term of the existing permit.

§ 5. Review Criteria

- a. The AQP shall review the application to ensure compliance with:
- (1) all applicable elements of the MPTN TIP (subtitle 12.2);
 - (2) all applicable Emission Standards or other federal requirements governing Air Pollutants; and
 - (3) the compliance status with any conditions within an existing permit.
- b. The AQP shall, within 30 days of receiving the application, notify the applicant of any additional information required to:
- (1) complete the application;
 - (2) evaluate compliance with an existing permit; or,
 - (3) assess applicability of other requirements of this title.

§ 6. Permit Issuance

- a. The AQP shall have 30 days from the date it receives all information

- b. The AQP shall not issue a permit under the provisions of this chapter when:
 - (1) a New Source Review permit, pursuant to subtitle 12.2, and/or a Title V permit, pursuant to chapter 4 of this subtitle is required.
 - (2) the Owner/Operator is found not to be in compliance with the conditions of a previously issued permit.

§ 7. Permit Duration

- a. Once issued the permit to operate shall remain valid until either:
 - (1) a revision is issued pursuant to this chapter;
 - (2) a New Source Review permit, pursuant to subtitle 12.2, and/or a Title V permit, pursuant to chapter 4 is issued; or
 - (3) the permit is revoked by the AQP for cause or, at the request of the applicant, is terminated.
 - (4) the Owner/Operator removes applicable sources or otherwise believes that a condition of their permit has ceased to be come applicable they must apply for a permit revision or, if all applicability criteria become moot, a permit termination.
- b. If the AQP denies to issue, or revokes for cause, the permit to operate, the Owner/Operator shall cease operations as of:
 - (1) the date of the denial, if the applicant does not appeal the denial within 30 days after a final permit decision has been issued.; or
 - (2) the date the denial is affirmed after all available appeals, as outlined in subtitle 12.4, ch. 3, have been exhausted.

CHAPTER 4. TITLE V OPERATING PERMITS

§ 1. Purpose

This section details the provisions applicable to Title V sources required to obtain permits to operate consistent with the requirements of Title V of the Act (42 U.S.C. §§ 7661 to 7661f, incl.).

§ 2. Applicability

- a. The following sources, unless exempted as provided in paragraph b. of this section, are Title V Sources subject to the operating permit requirements of this section and shall have a permit to operate that assures compliance with all applicable requirements:
 - (1) any major source;
 - (2) any source, including an Area Source, subject to a standard, limitation, or other requirement under section 111 of the Act (42 U.S.C. § 7411) – commonly referred to as New Source Performance Standards (NSPS);
 - (3) any source, including an Area Source, subject to a standard or other requirement under section 112 of the Act (42 U.S.C. § 7412), except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under section 112(r) of this Act;
 - (4) any affected source as defined in 40 CFR §72.2; and,
 - (5) any source in a source category designated by the Administrator pursuant to the Act.
- b. The following source categories are exempted from the requirements of this section:
 - (1) sources which are not major, and for which all source applicable standards and requirements under either section 111 or 112 of the Act have been exempted by the Administrator from the requirement to obtain a

- permit under 40 CFR Parts 70 or 71;
- (2) all sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR Part 60, Subpart AAA—Standards of Performance for New Residential Wood Heaters; and
- (3) all sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR Part 61, Subpart M—National Emission Standard for Hazardous Air Pollutants for Asbestos, 40 CFR §61.145, Standard for Demolition and Renovation.

§ 3. Program administration

Until such time as the Administrator has explicitly granted full or interim approval to the MPTN AQP for a Title V permit program in compliance with the requirements of 40 CFR Part 70, the Reviewing Authority will issue, administer and enforce Part 71 permits until they may be replaced by permits issued under the approved MPTN AQP Title V program.

- (1) For the purpose of administering the Part 71 program the Reviewing Authority shall be:
 - (a) the Administrator unless the authority to administer a Part 71 program has been delegated to the MPTN AQP;
 - (b) the MPTN AQP following publication of notice of delegation approval for the MPTN AQP to administer a Part 71 program.
- (2) The Reviewing Authority will suspend the issuance of Part 71 permits promptly upon publication of notice of approval of the MPTN AQP Title V permit program.
- (3) The Reviewing Authority may retain jurisdiction over any Part 71 permits for which an administrative or judicial review process is not complete.

§ 4. Definitions

- a. As used in this chapter, all terms not defined herein, or within Chapter 1 §4b of this Title, will have the meaning given them in the Clean Air Act.
- b. Definitions
 - (1) “Part 71 Permit” means any permit or group of permits covering a Title V source that has been issued, renewed, amended or revised pursuant to a Federal operating permits program under 40 CFR Part 71.
 - (2) “Permitting Authority” means either of the following:
 - (a) the Administrator, in the case of EPA-implemented programs; or
 - (b) the MPTN Air Quality Program (AQP) if authorized by the Administrator to carry out the permit programs of this chapter.

§ 5. Permits

- a. Until such time as the Administrator has explicitly granted full or interim approval to the MPTN AQP for a Title V permit program in compliance with the requirements of 40 CFR Part 70, persons required to obtain operating permits for their Title V source shall apply to the Reviewing Authority for a Part 71 permit as stipulated within 40 CFR Part 71.
- b. Reserved

SUBTITLE 12.4 ADMINISTRATIVE RULES AND REFERENCES**CHAPTER 1. PERMIT FEES****§ 1. Application Fees****a. New Source Review**

- (1) The fee for an application submitted in accordance with subtitle 12.2 of this title will be based on annual Allowable Emissions, as defined in ch. 1, §3b(4) of that subtitle.
- (2) Except as provided in paragraph a(3) thru (5) of this section, the fee for permits shall be set equal to \$100 per ton calculated using the highest Regulated NSR Pollutant emitted by the Facility.
- (3) The fee for an application for coverage under a general permit shall be established within the general permit at the time it is issued.
- (4) The fee for Facilities that fall under the umbrella of tribal government operations shall be half the rate specified within this section.
- (5) There shall be no fee for an administrative permit revision.

b. Operating Permits

- (1) There is no fee associated with filing a Minor Source Registration pursuant to subtitle 12.3, chapter 2.
- (2) The fee for applications submitted for a new Non-Title V Operating Permit, in accordance with subtitle 12.3 of this title, is the lesser of the following:
 - (a) \$100 for each unit subject to an applicable Emission Standard; or
 - (b) \$250 for each Emission Standard that is applicable to the Source.
- (3) The fee for applications to revise a Non-Title V Operating Permit shall be calculated as described in paragraph b(2) of this section except that only the units or Emission Standards applicable to the revision shall be used to calculate the fee.
- (4) Fees associated with permits for a Title V permit pursuant to subtitle 12.3, chapter 4, shall be:
 - (a) determined as specified within 40 CFR §71.9.
 - (b) In the case that the part 71 program has been delegated to the AQP and EPA has suspended their fee collection, the application fee shall be that specified within paragraph a. of this section.

§ 2. Permit Issuance Fee**a. General**

Except as specified in paragraph b of this section, a permit issuance fee shall only be assessed in cases where the AQP required, due to permit complexity, the assistance of 3rd party technical assistance. In such cases,

- (1) the permit issuance fee shall be the total cost of the 3rd party technical assistance less fifty percent (50%) of the permit application fee previously assessed.
- (2) The AQP shall notify the applicant of the need for 3rd party technical assistance prior to, or at the same time the applicant is notified of the AQPs completeness determination.

b. Title V permits

In addition to the requirements specified in paragraph a. of this section, the permit issuance fee shall include any amount required, as stipulated 40 CFR §71.9, for the first annual operating period.

§ 3. Annual Operating Fees

- a. Except for Title V Sources no fees shall be assessed after permit is issuance.
- b. Title V Sources issued a permit pursuant to subtitle 12.3, chapter 4 of this title are required to pay annual fees

based on Actual Emissions. Such fees shall be specified within the issued Title V permit.

§ 4. Payment

- a. Fees will be paid to the Mashantucket Pequot Tribal Air Quality Program.
- b. Fees collected may be utilized by the Air Quality Program to support any costs associated with evaluation, issuance, or ensuring compliance of the permit.
- c. Application fees are due at the time of submittal. The timely review periods specified within chapter 2 of this subtitle shall not commence until the application fee is collected.
- d. Permit issuance fees, if any, are due prior to the issuance of a permit by the AQP.
- e. Annual operating fees, if any, are due as specified within the facility's operating permit and are a condition of the permit. Late payment of an annual operating fee constitutes a permit violation subject to enforcement action.

CHAPTER 2. TIMELY REVIEW

§ 1. General

- a. The AQP shall act on permit applications as expeditiously as possible by, at minimum, striving to comply with the schedules outlined within this chapter.
- b. If circumstances arise in which the AQP believes that the schedule defined within this chapter is unattainable, the AQP shall attempt to establish a mutually agreed upon schedule with the applicant.

§ 2. Requests for General Permit Coverage

- a. The AQP shall strive to notify the applicant of the final decision within ninety (90) Days of its receipt of the coverage request and collection of the application fee.
- b. The AQP shall first commence a 45-day completeness review period to determine if the request for coverage under a general permit is complete.
 - (1) Within thirty (30) Days after the receipt of the coverage request, the AQP shall make an initial request for any additional information necessary to process the coverage request and the applicant must submit such information within fifteen (15) Days.
 - (a) If the applicant does not submit the requested information within fifteen (15) Days from the request for additional information and this results in a delay that is beyond the 45-day completeness review period, the 90-day permit issuance period for the general permit will be extended by the additional days it takes to submit the requested information beyond the 45-day period.
 - (b) If the AQP notifies the applicant after the 30-day period that additional information necessary to process the coverage request, the applicant will still have fifteen (15) Days to submit such information and the AQP shall still grant or deny the request for coverage under a general permit within the 90-day general permit issuance period and without any time extension.
 - (2) If the AQP determines that the request for coverage under a general permit has all the relevant information and is complete, it will notify the applicant in writing as soon as that determination is made. If the applicant does not receive from the AQP a request for additional information or a notice that the request for coverage under a general permit is complete within the 45-day completeness review period as described in this section, the request will be deemed complete.

§ 3. Permits

- a. The AQP shall strive to act on the permit application, by denying the application or preparing a draft permit that

describes the proposed limitations and its effect on the Potential to Emit of the source within one hundred and twenty (120) Days of its receipt of the application and collection of the application fee.

- b. The AQP shall determine if the application is complete within sixty (60) Days of receipt.
 - (1) Within forty-five (45) Days after the receipt of the application, the AQP must make an initial request for any additional information necessary to process the application and the applicant must submit such information within fifteen (15) Days.
 - (a) If the applicant does not submit the requested information within fifteen (15) Days from the request for additional information and this results in a delay that is beyond the 60-day completeness review period, the 120-day period to deny or prepare a draft permit will be extended by the additional Days it takes to submit the requested information beyond the 60-day period.
 - (b) If the AQP notifies the applicant after the 45-day period that additional information necessary to process the application, the applicant shall have fifteen (15) Days to submit such information and the AQP must still deny or prepare a draft permit within the 120-day period and without any time extension.
 - (2) If the AQP determines that the application contains all the relevant information and is complete, it will notify the applicant in writing as soon as that determination is made. If the applicant does not receive a request from the AQP for additional information or a notice that the application is complete within the 60-day completeness review period described in this paragraph, the application will be deemed complete.

CHAPTER 3. PROCEDURES FOR APPEAL

§ 1. Administrative Review

- a. As specified in 47 M.P.T.L. ch. 5, §1, a Person may, within 30 days after a final permit decision has been issued request a hearing before the AQP if they have been denied a Permit; in addition,
- b. Within 30 days after a final permit decision has been issued, any person who filed comments on the draft permit or participated in the public hearing may petition the AQP to review any condition of the permit decision.
 - (1) Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for administrative review only to the extent that the changes from the draft to the final permit or other new grounds were not reasonably ascertainable during the public comment period on the draft permit.
 - (2) The 30-day period within which a person may request review under this section begins with the service of notice of the final permit decision, unless a later date is specified in that notice.
- c. The petition must include a statement of the reasons supporting the review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by these regulations, unless the petitioner demonstrates that it was impracticable to raise such objections were not reasonably ascertainable within such period or unless the grounds for such objection arose after such period and, when appropriate, a showing that the condition in question is based on:
 - (1) a finding of fact or conclusion of law that is clearly erroneous; or
 - (2) an exercise of discretion or an important policy consideration that the AQP should, in its discretion, review.
- d. The AQP may also decide on its own initiative to review any condition of any permit issued under this program.
- e. Within a reasonable time following the filing of the petition for review, the AQP will issue an order either granting or denying the petition for review.
 - (1) To the extent review is denied, the conditions of the final permit decision become final AQP action. If the AQP denies review, the permit applicant and the person(s) requesting review must be notified through means that are adequate to assure reasonable access to the decision, which may include mailing a notice to each party.

(2) If granted, a review hearing shall be conducted following the procedures outlined within 40 M.P.T.L. ch. 2.

f. The AQP, at any time prior to the rendering of the decision to grant or deny review of a permit decision, may, upon notification to any interested parties, withdraw the permit and prepare a new draft permit addressing the portions so withdrawn. The new draft permit shall proceed through the same process of public comment and opportunity for a public hearing as would apply to any other draft permit subject to this part.

g. A petition to the AQP under this section is a prerequisite to seeking judicial review of the final agency action. For purposes of judicial review, final agency action occurs when a final permit is issued or denied by the AQP and administrative review procedures are exhausted. A final permit decision will be issued by the AQP:

- (1) when the AQP issues notice to the parties that review has been denied;
- (2) when the AQP issues a decision on the merits of the appeal and the decision does not include a remand of the proceedings; or,
- (3) upon the completion of remand proceedings if the proceedings are remanded, unless the AQP's remand order specifically provides that appeal of the remand decision will be required to exhaust administrative remedies.

§ 2. Judicial Review

After exhausting the available administrative remedies, a Person dissatisfied with a final decision of the AQP is entitled to Tribal Court review provided that a complaint is filed pursuant to the procedures set forth in the Tribal Administrative Procedures Act (40 M.P.T.L.).

CHAPTER 4. COMPLIANCE TESTING AND MONITORING

§ 1. Purpose and Applicability

a. Purpose - This section outlines compliance testing and monitoring requirements to be followed if stipulated within your Facility's permit.

b. Applicability

- (1) Owners/Operators with permit conditions specifying compliance testing and monitoring must follow the procedures outlined within this section, except that;
- (2) If the Owner/Operator is subject to a Federal standard specified within 40 CFR Parts 60, 61, 62 or 63 which requires testing of the same Emissions Unit(s), the AQP will accept that compliance testing and monitoring provided that the AQP is copied on all required notifications plans and reports submitted to EPA.

§ 2. Testing, Enforcement, Inspection and Complaints

a. When required by a federal standard, or requested by the AQP to determine compliance or non-compliance with any air pollution control plan, rule or regulation, the source Owner/Operator must submit an acceptable report of measured emissions within thirty (30) Days of testing. The source Owner/Operator shall bear the cost of measurement and preparing the report of measured emissions. Failure of such person to submit a report acceptable to the AQP within the stated time shall be sufficient reason for the AQP to suspend or deny a permit. In the event a source Owner/Operator can demonstrate to the AQP such time is not sufficient, he/she may request an extension in writing and be granted a thirty (30) Day extension.

b. A source Owner/Operator shall submit a detailed description of proposed testing protocols to the AQP for approval not less than thirty (30) Days prior to the test. Such notification shall include, but is not limited to, the following:

- (1) the Facility name, address, telephone number, and contact;
- (2) the name of the contractor testing company, company contact, telephone number and email information;

- (3) the reasons for performing the compliance stack test;
- (4) a complete test program description;
- (5) a description of the process or device to be tested;
- (6) a description of the operational mode of the process during the testing period;
- (7) a list of operational and process data to be collected;
- (8) a list of test methods to be used;
- (9) a description of any requested alternatives or deviations from standard EPA testing methods or from the requirements of this part;
- (10) a list of calibration methods and sample data sheets;
- (11) a description of pre-test preparation procedures;
- (12) a list of sample collection and analysis methods;
- (13) a description of quality assurance procedures specific to the testing;
- (14) a description of standard operating procedures (SOPs) for laboratory analysis of samples, or reference to SOPs already on file with the division; and
- (15) a description of Facility safety/emergency response procedures applicable to the area of the Facility in which the test will occur.

c. The source Owner/Operator shall allow the AQP, or a designated representative, free access to observe the stack testing being conducted. No person shall conceal an emission by the use of air or other gaseous diluent to achieve compliance with an Emission Standard or Emission Limitation, which is based on the concentration of a contaminant in the gases emitted through a stack.

d. Emission testing, sampling and analytical determinations to ascertain compliance with this section shall be conducted in accordance with test methods acceptable to the AQP and U.S. EPA. The Reference Methods contained in 40 CFR Part 60 Appendix A and 40 CFR Part 61 Appendix B shall be considered acceptable test methods for those sources and contaminants for which they are expressly applicable.

e. Enforcement of these rules and regulations shall be performed by the AQP. AQP staff will also be responsible for inspecting the facilities annually, any unannounced audits, or based on any complaints received. Findings shall be recorded and a copy given to both the Facility and the AQP. For the purpose of ascertaining compliance or noncompliance with any air pollution control plan, rule or regulation, the AQP may conduct separate or additional emission tests on behalf of the Tribe. A source Owner/Operator shall provide sampling ports, scaffolding, and other pertinent equipment required for emission testing. The Facility shall bear the costs of such equipment.

§ 3. Continuous Emissions Monitoring Systems (CEMS)

a. CEMS continuously measure concentrations of pollutants emitted into the atmosphere in exhaust gases from combustion or industrial processes. CEMS components could include:

- (1) A NO_x pollutant concentration monitor;
- (2) A CO pollutant concentration monitor;
- (3) A volumetric flow monitor;
- (4) A diluent gas (oxygen (O₂) or CO₂) monitor; or
- (5) A computer-based data acquisition and handling system for recording and performing calculations with the data.

b. The Owner/Operator of a source that is required by Federal regulation or by the AQP to monitor emissions using CEMS must install and operate the CEMS, and assure the quality of the data for emissions and volumetric flow at each such unit.

c. At least ninety (90) Days prior to the installation of a CEMS, the Owner/Operator shall submit a CEMS monitoring plan to the AQP and when applicable, the Administrator, including, but not limited to, the following:

- (1) A complete description of the emission monitoring system including, but not limited to:
 - (a) the identity of the CEMS vendor, including the company name, address, telephone number and email information;
 - (b) the identity of the manufacturer, model number, measurement method employed, and range of each of the major components or analyzers being used;
 - (c) a description of the sample gas conditioning system;
 - (d) a description and diagram showing the location of the monitoring system, including sampling probes, sample lines, conditioning system, analyzers, and data acquisition system; and,
 - (e) a description of the data acquisition system, including sampling frequency, and data averaging methods.
 - (2) The mathematical equations used by the data acquisition system, including the value and derivation of any constants, to calculate the emissions in terms of the applicable Emission Standards;
 - (3) An example of the data reporting format;
 - (4) A description of the instrument calibration methods, including the frequency of calibration checks and manual calibrations, and path of the sample gas through the system;
 - (5) The means used by the data acquisition system of determining and reporting periods of excess emissions, monitor downtime, and out-of-control periods; and,
 - (6) A description of the means used to provide for short-term and long-term emissions data storage.
- d. The Owner/Operator shall conduct performance specification testing of the CEMS in accordance with the following:
- (1) For a CEMS monitoring opacity or gaseous emissions, the performance specification requirements of 40 CFR 60, Appendix B shall apply;
 - (2) All performance specification testing shall be conducted within one hundred eighty (180) Days of the CEMS equipment initial startup;
 - (3) The AQP and, when applicable, the Administrator shall be notified of the date or dates of the performance specification testing at least thirty (30) Days prior to the scheduled dates so that they may be present during the testing; and,
 - (4) A written report summarizing the results of the testing shall be submitted to the AQP and, when applicable, the Administrator within thirty (30) Days of the completion of the test.
- e. Emissions Calculated for Periods of Missing Data

| Annual Availability (%) of Monitor or System | Number of Hours Missing (N) | Value Substituted for Each Missing Hour |
|---|-------------------------------------|--|
| Greater than or equal to 95% | N is less than or equal to 24 hours | Average of the hours recorded before and after missing period 90th percentile value recorded in previous 30 days of service or the before/after value, whichever is greater |
| | N is greater than 24 hours | |
| Less than 95% but greater than or equal to 90% | N is less than or equal to 8 hours | Average of the hours recorded before and after missing period 95th percentile value recorded in previous 30 days of service or the before/after value, whichever is greater |
| | N is greater than 8 hours | |
| Less than 90% | N is greater than 0 hours | Maximum value recorded in previous 30 days of service |

f. Certification Requirements – The monitoring plan requires the following performance certification tests for CEMS as per the schedule in the unit's operating permit:

- (1) a 7-day calibration error test for each monitor;
- (2) a linearity check for each pollutant concentration monitor;
- (3) a relative accuracy test audit for each monitor;
- (4) a bias test for each flow monitor, and the NO_x or CO CEMS;
- (5) a cycle time test for each pollutant concentration monitor;
- (6) an interference test for flow monitors; and,
- (7) an accuracy test for fuel flow meters, as applicable.

g. Quality Assurance/Quality Control

- (1) The Operator must perform periodic performance evaluations of the equipment, including calibration error tests, interference tests for flow monitors, relative accuracy test audits and bias tests.
- (2) The Owner/Operator must develop and implement a written quality assurance/quality control plan for each system. The quality control plan must include complete, step-by-step procedures and operations for calibration checks, calibration adjustments, preventive maintenance, audits, and recordkeeping and reporting. The quality assurance plan must include procedures for conducting periodic performance tests.

§ 4. Control Equipment/Catalyst Monitoring Plans

a. Owners/Operators of an Emissions Unit that relies on air pollution control equipment to comply with an Emission Limitation specified in a permit shall provide a written monitoring plan detailing all maintenance, monitoring, and any sampling/testing specified by the manufacturer, to ensure the continued effectiveness of the control equipment.

b. The Owner/Operator shall submit the Control Equipment Monitoring Plan as part of the application for a permit.

c. The Control Equipment Monitoring Plan shall include the following information for each device:

- (1) the type of control device;
- (2) the manufacturer of the control device;
- (3) the model and serial number of the control device, if known;
- (4) the pollutant(s) controlled by the device;
- (5) a description of the control device and how it operates in the process;
- (6) the capture efficiency of the device and its method of determination;
- (7) the control efficiency of the device and its method of determination;
- (8) the operational parameters of the device that are or will be monitored, such as temperature, pressure, differential pressure, pH, and flowrate, the normal range for each parameter monitored, and the range of each parameter during startup or shutdown conditions, if different;
- (9) a description of any data recording or recordkeeping, parameter setpoints and alarms, and corresponding operator responses to malfunctions of the device to prevent uncontrolled emissions of air pollution;
- (10) the manufacturer's recommended procedures for operation of the device;
- (11) the manufacturer's recommended scheduled for service, maintenance, and calibration of the device; and
- (12) any other operational parameters that affect the ability of the device to control air pollution.

d. If the air pollution control device uses a catalyst as part of its operation to reduce the volume or concentration of pollutant passing through it, the owner or operator shall submit a Catalyst Management Plan for the catalytic device which includes the following:

- (1) the information listed in (c)(1) - (12), above;
- (2) a description of the method for catalyst sampling and determination of catalyst activity; and

(3) the frequency of catalyst replacement.

e. If the Owner/Operator determines that the information and procedures documented in the Control Equipment Monitoring Plan or Catalyst Management Plan need to be changed at any time to accurately represent the activities performed to maintain the control equipment, the owner or operator shall submit a revised monitoring or management plan, as applicable, to the AQP in writing.

Appendix I
Case-By-Case Control Technology Review Procedures
Including BACT Analysis Guidance
For NSR Pollutant Control
At Minor Sources

General

For its review, the MPTN AQP will consider local air quality needs, typical control technology used by similar sources in surrounding areas, anticipated economic growth in the area and cost-effective control alternatives. At a minimum, the AQP will require control technology that assures that the NAAQS are achieved and that each affected emissions unit will comply with all requirements of 40 CFR Parts 60, 61 and 63 that apply.

The required control technology resulting from such a review may range from no control technology, to control technology that is less stringent than the reasonably available control technology (RACT) level of control (which is typically required for existing major sources in nonattainment areas), to technology that is the BACT level of control (which is the level required for new major sources and major modifications in attainment areas). The control technology chosen will depend on the air quality needs of the area, other applicable regulatory programs of the Act, and technical and economic feasibility.

Furthermore, and based on the results of the control technology review, the emission limitations required by the reviewing authority may consist of numerical limits on the quantity, rate or concentration of emissions, pollution prevention techniques, design standards, equipment standards, work practice standards, operational standards or any combination thereof. If it is technically and economically feasible, the AQP must require a numerical limit on the quantity, rate or concentration of emissions for each affected emissions unit at your source.

For a new minor source that is subject to this rule, the case-by-case control technology review will be conducted for all Affected Emissions Units that emit or have the potential to emit the pollutant(s) for which the source is subject to this regulation. (*See 76 Fed. Reg. 38960 (July 1, 2011)*)

Types of Controls

1. *Existing Control Technology*: a control technology which has been proven in practice for the source category. This should include both emission limitations imposed by other jurisdictions and test results which reflect what was actually achieved in performance.
2. *Technically Feasible Alternatives*: a control technology which has been demonstrated in practice on other source categories, but has not been demonstrated in practice on the class or category of source under review. Applying a control technology to a source category in which it has not been demonstrated is called control technology transfer.
3. *Innovative Control Technology*: a control technology that has never been applied to any source on a full scale, continuously operating basis. This technology may be chosen on the basis of pilot scale or short-term testing. In selecting an innovative control technology, there must be some reasonable level of expectation that the innovative options will outperform the demonstrated control. Innovative control is not mandated but may be approved if submitted by the applicant.
4. *Using Production Processes, Fuels, and Coatings That Are Inherently Lower Polluting*: these options should be evaluated alone and in combination with add-on pollution control devices. Examples include adjusting raw material feed to reduce emissions, using methanol for low NO_x applications, and using powder coatings instead of solvent borne coatings where technically feasible. In considering these options, it is especially important to work closely with the appropriate permitting officials who may allow some information to be treated as confidential or proprietary.
5. *Specific Design or Operational Parameters*: these options may include such factors as combustion zone temperature, combustion zone residence time, automatic combustion controls, pressure drop across control equipment, etc.

Identification of Control Alternatives

There are numerous sources of information on control alternatives for various source categories. The following sources of information will be checked by the MPTN AQP. Hence they should similarly be considered by the applicant.

1. RACT/BACT/LAER Clearinghouse

All applicants should check EPA's BACT/LAER Clearinghouse (<http://cfpub.epa.gov/RBLC/>) prior to submitting an application. The AQP will review this information and compare the equipment proposed to any up-to-date references of similar types of equipment within this database.

2. State Air Quality Permits

Applicants should be aware of permits issued for their industry. The AQP will review permits recently issued by surrounding state programs.

3. Permitting Engineers

The applicant's air permitting consultant will likely have experience with other jurisdictional determinations and will often be the best source of information regarding similar case-by-case determinations.

4. Control Equipment vendors

Vendors have information on the most recent control technology, cost information, emission guarantees, and test results. Provided that the applicant has interacted with multiple vendors, this will likely be the best source of information for the applicant.

5. Trade Associations

Associations serving one sector often maintain permitting and emission test reports. Examples include the National Council for Air and Stream Improvement (NCASI) for pulp and paper industry, Electric Power Research Institute (EPRI) for electric generators, and American Gas Cleaning Institute (AGCI) for information on air pollution control equipment.

6. Agencies or Companies Outside the United States

Where there is reason to believe that better controls are being used outside the United States, these groups should be consulted for information on the most recent advances in control technologies, control costs, test results, etc.

7. Inspection/Performance Test Reports

Recent test data may be useful in establishing emission limitations for sources. Inspection and performance test data may also reveal potential problems with a control technology or specific equipment.

8. Technical Papers and Journals

Responsibilities

The applicant is responsible for proposing control technologies for each affected emissions unit. The AQP is responsible for confirming the suitability of the control technology with respect to protecting local and regional air quality. A top-down Best Available Control Technology (BACT) analysis, if requested, places the additional responsibility on the applicant to present and defend their proposal.

Applicant

When designing a project which will necessitate the installation of a new, modified or replacement source of NSR emissions the applicant should, at a minimum, pursue utilizing the existing control technology which will result in the lowest emissions. Prospective vendors should be able to help project managers identify such equipment and may even be able to provide references concerning recently permitted facilities where the same or similar equipment had been installed.

Proposing the lowest emitting existing technology will generally satisfy the requirement and greatly streamline the review process. If the lowest emitting equipment will not be proposed the applicant should familiarize himself with the requirements specified below for Analysis of BACT and anticipate the AQP's requirement to complete such a BACT review.

MPTN AQP

When considering applications for minor NSR permits, the case-by-case control technology review conducted by the AQP will, under most circumstances, be straightforward. In general, the AQP will rely predominantly on recent determinations identified for similar sources within permits issued by surrounding jurisdictions. Such determinations typically represent the most current accepted existing controls. Therefore, the case-by-case review could be as simple as the AQP comparing those controls to that proposed by the applicant.

However, in cases where the applicant's proposed controls are not comparable to those recently permitted, when other regulatory programs require it, or simply if the AQP believes that a source may cause a disproportionate influence on the surrounding air quality, the AQP will require a more stringent level of control. Therefore, when required by the

AQP the applicant must provide the more detailed analysis of control options as described below under the heading Analysis of Best Available Control Technology (BACT).

Analysis of Best Available Control Technology (BACT)

BACT is a top-down analysis that may be required by the AQP. Such an analysis is not limited to a simple review of existing controls for the source category in question. The starting assumption for the top-down approach is that the most stringent control possible is BACT. The burden of proof for applying a less stringent control rests in the applicant's case-specific evaluation of the control alternatives. If the most stringent control for a specific pollutant is selected, the BACT evaluation for that pollutant is stopped. However, further evaluation of that control option's effectiveness on other pollutants may be required.

The applicant must first identify the most stringent control possible (usually referred to as Lowest Achievable Emission Rate (LAER)) and then quantify emissions. At this step of the BACT review process, no technically feasible alternative should be ruled out as a possible BACT candidate. The review must be broad enough to take into account controls applied to similar source categories and new control technologies. Once the applicant has identified all appropriate control alternatives, the applicant should rank them in order of control effectiveness, with the most effective control alternative at the top. If the most stringent control for a specific pollutant is selected, the BACT evaluation for that pollutant is stopped. However, further evaluation of that control option's effectiveness on other pollutants may be required.

If the applicant proposes using a control technology less effective than the top case the applicant will need to provide a detailed analysis to justify that proposal. Three criteria may be used in such an analysis to assess:

1. energy impacts
2. environmental impacts
3. economic impacts

Since the AQP will consider these criteria in its decision making process, it is important that applicants provide fully documented estimates of the emissions using alternative control as well as quantitative and qualitative environmental, energy, and economic impacts as described below under the heading "Impact Analysis Criteria." The evaluation process should be conducted in an incremental manner, from the top-down. The first step in this approach is to determine, for the emission source in question, the most stringent control available for a similar or identical source or source category. If it can be shown that this level of control is technically or economically inappropriate for the source in question, then the applicant should determine the next most stringent level of control and evaluate it similarly. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections. Thus, the top-down approach shifts the burden of proof to the applicant who must justify why the proposed source is unable to apply the best technology available.

The applicant should prepare a chart for each pollutant and for each emissions unit, or small group of units in the BACT analysis. The chart should consist of an array of control alternatives, showing control efficiencies, expected emissions, economic costs, environmental benefits, energy costs, and other costs. These charts will be used to compare the control alternatives and to focus the selection of a control option as BACT. Failing to address the top case in an attempt to avoid stringent controls will result in the process being delayed while the applicant is required to reassess alternatives against the control option the permitting authority determines to be the top case.

Impact Analysis Criteria

Energy Impacts

While energy impacts may also represent a significant contribution of economic impact analysis, the intent here is to assess impacts specific to the increased energy required for the control technology. The analysis should weigh the energy impacts of a given control technique or technology by estimating its direct energy consumption compared with that of alternatives. The energy requirements of the control options should be shown in terms of total and incremental (units of energy per ton of reduction) energy costs. Examples of factors which may be considered as a part of the energy impacts analysis are:

- Local availability of required energy
- Off-site emissions generated as a result of an energy increase

Environmental Impacts

The applicant should estimate the net environmental impact associated with each control alternative. Both beneficial impacts and adverse impacts should be discussed and quantified, where possible. The analyses should be presented in the form of the incremental impact of each control alternative relative to the most stringent system identified as a control alternative.

The environmental impacts analysis is not to be confused with the *air quality impact analysis*, which is conducted to demonstrate that the source (using the level of control eventually selected as BACT) will not cause or contribute to a violation of any applicable NAAQS or PSD increment.

When weighing environmental impacts, the applicant should consider all Air Pollutants and the impact on other environmental media affected by the control alternative. This includes Air Pollutants which are not currently regulated under the Clean Air Act, but which may have a significant environmental impact.

The applicant should identify any significant or unusual environmental impacts associated with a control alternative that have the potential to affect the selection or rejection of a control alternative. Some control technologies may have potentially significant secondary [other than air quality] environmental impacts. Scrubber effluent, for example, may affect water quality and land use; and, similarly, technologies using cooling towers may affect visibility.

Other examples of secondary environmental impacts may include hazardous waste discharges, such as spent catalysts or contaminated carbon. Generally, these types of environmental concerns become important when sensitive site-specific receptors exist or when the incremental emissions reduction potential of the top control option is only marginally greater than the next most effective option. However, the fact that a control device creates liquid and solid waste that must be disposed does not necessarily argue against selection of that technology as BACT, particularly if the control device has been applied to similar facilities elsewhere and the solid or liquid waste problem under review is not significantly greater than in those other applications. On the other hand, where the applicant can show that unusual circumstances at the proposed source create greater problems than experienced elsewhere, this may provide a basis for the rejection of the most efficient alternative as BACT.

The following is a brief outline of some of the environmental categories that should be considered during an analysis of environmental impacts.

1. Impacts on air quality
 - visible emissions and visibility impairment
 - toxic Air Pollutants and other non-criteria Air Pollutants
 - odors, etc.
2. Impacts on water quality and water availability (e.g. Use of a water-based air pollution control device in situations where the water supply serving your Facility is stressed).
3. Solid waste disposal impacts
4. Other environmental impacts
5. Noise
6. Steam plumes from cooling towers
7. Potential for accidental releases
8. Reliability (or the potential for malfunction and downtime)

Where approximately the same degree of emission reduction can be achieved by different technologies, preference should be given to the technology that achieves the reduction with the greatest degree of pollution prevention.

Economic Impacts

In evaluating the economics of various BACT control options, primary consideration should be given to the cost effectiveness of an option and not to the economic situation of the source applicant. For control technologies that have been proven for the source category under review, the economic impact of requiring this technology on a source under review is less important than the cost effectiveness. There are two measures of cost effectiveness. These include: average cost effectiveness (total annualized costs of control divided by annual emissions reduction, or the difference between the baseline emission rate and the controlled emission rate), and incremental cost effectiveness (dollars per incremental ton removed). Baseline emissions used to determine the degree of pollution reduction must be based on a realistic scenario of the upper bound of uncontrolled emissions from the source, and must be derived in a manner consistent with the procedures specified in EPA's Draft New Source Review Workshop Manual (October 1990). Emission reduction credit can be taken for using inherently lower polluting processes.

When comparing two control devices with a similar level of control for the same pollutants, incremental cost may be used in conjunction with the average cost effectiveness to justify the elimination of the more stringent control level. However, incremental costs alone should not be used as a basis for justifying the elimination of a control option.

In the analysis of economic impacts, the applicant should estimate the approximate costs of the different emission control alternatives. The analysis should include a complete explanation of procedures used for assessing the economic impacts, any supporting data, and an itemization and explanation of all costs. Credit for tax incentives should be included, along with credits for product recovery savings and by-product sales generated from the use of the control system.

In evaluating the relative cost effectiveness of alternatives, calculations should be based on allowable emissions at maximum design capacity for 8,760 hours per year. If permit condition(s) limit operation to less than 8,760 hours per year, the analysis may also include data based on the allowed operation.

Annual costs should include the operation and maintenance cost plus the annualized cost for capital and design engineering. The capitalization should be based on the average useful life of equipment. The economic life of a control system typically varies between ten (10) and twenty (20) years and should be determined consistent with data from EPA cost support documents and IRS Class Life Asset Depreciation Range System (publication, #534).

Applicants are responsible for fully documenting all relevant cost information. Vendor quotes or other reliable means should be the primary basis for estimates.

A complete economic analysis should compare costs of controls both within the specific source category under review and, as a comparison of costs, for other industries, on the basis of dollars per ton of pollutant removed. The analysis should also represent the control option costs in terms of operations at full capacity (8,760 hours per year) and the control cost as a percent of the total project cost. If permit condition(s) limit operation to less than 8,760 hours per year, the analysis may also include data based on the allowed operation.

The analysis must be source specific, but should also be general enough to consider normal costs for doing business in a given field. A demonstration by an applicant that it cannot afford to construct a Facility using the most stringent technology does not allow the more stringent technology to be rejected as BACT. Rather it is a statement of whether the applicant is financially capable of conducting business in that field.

Enforceability

The BACT determination for each pollutant must result in a federally enforceable permit. BACT must be specified not only in terms of a control technology, but also in terms of emission limits and/or design, equipment, work practice, or operational standards that are federally enforceable.

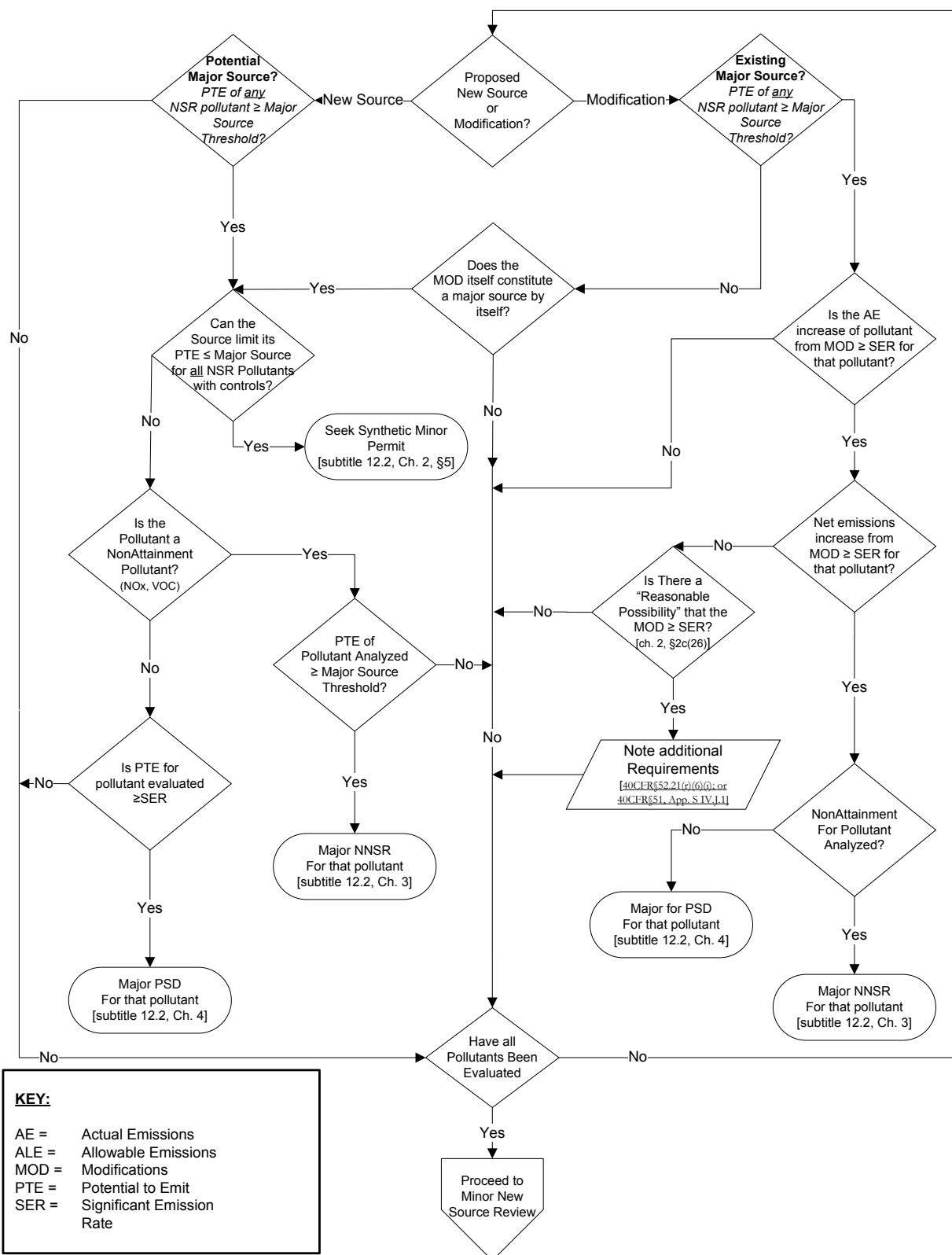
The BACT limits must be point specific and must include appropriate averaging times, reference test methods, and a method for ensuring continuous compliance.

Appendix II

Applicability Flow Charts

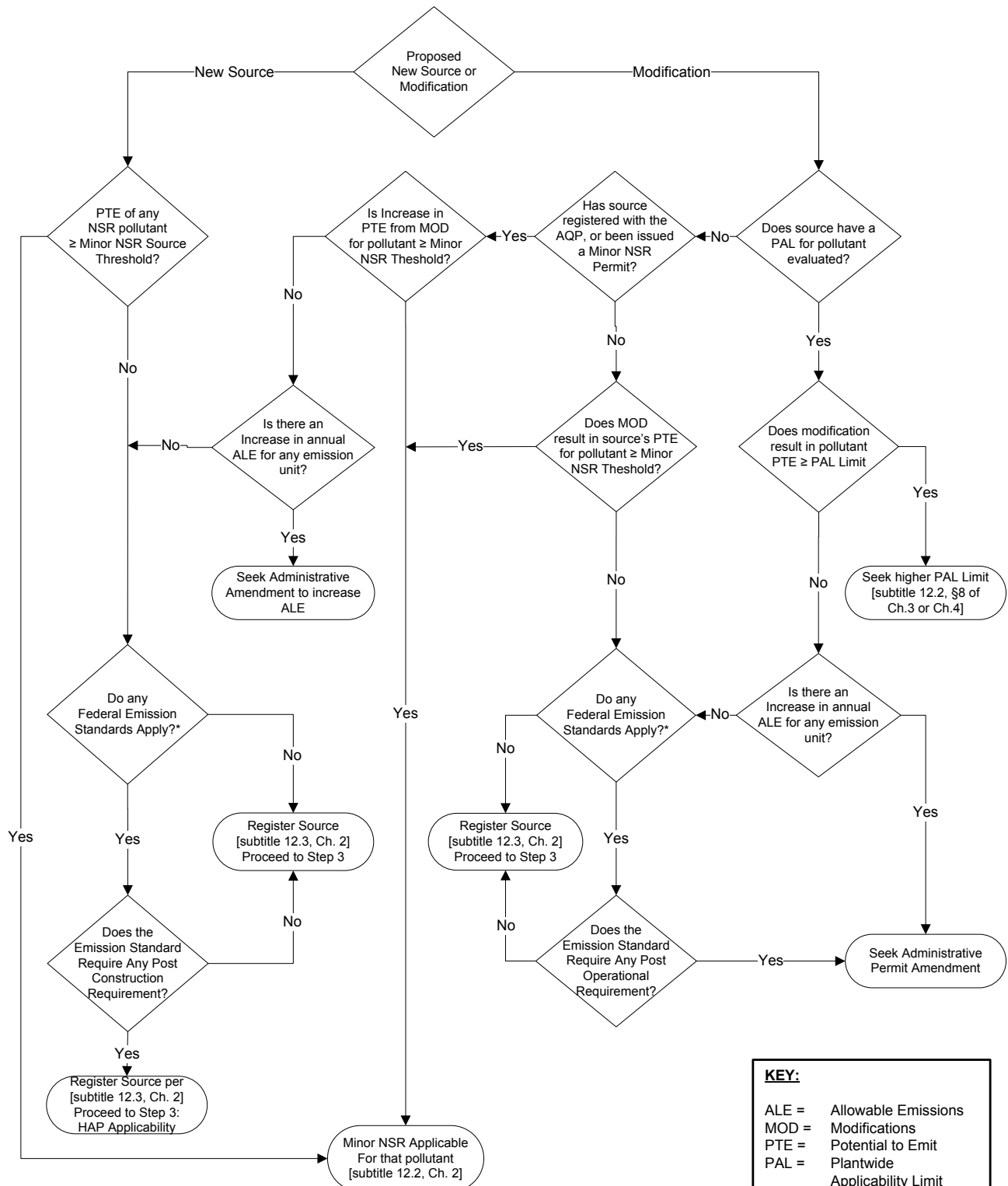
Step 1: MPTN Air Quality Program Permit Applicability Determination

Evaluate Each NSR Pollutant For Major Source Applicability



Step 2: MPTN Air Quality Program Permit Applicability Determination

Evaluate Each NSR Pollutant For Minor Source Applicability

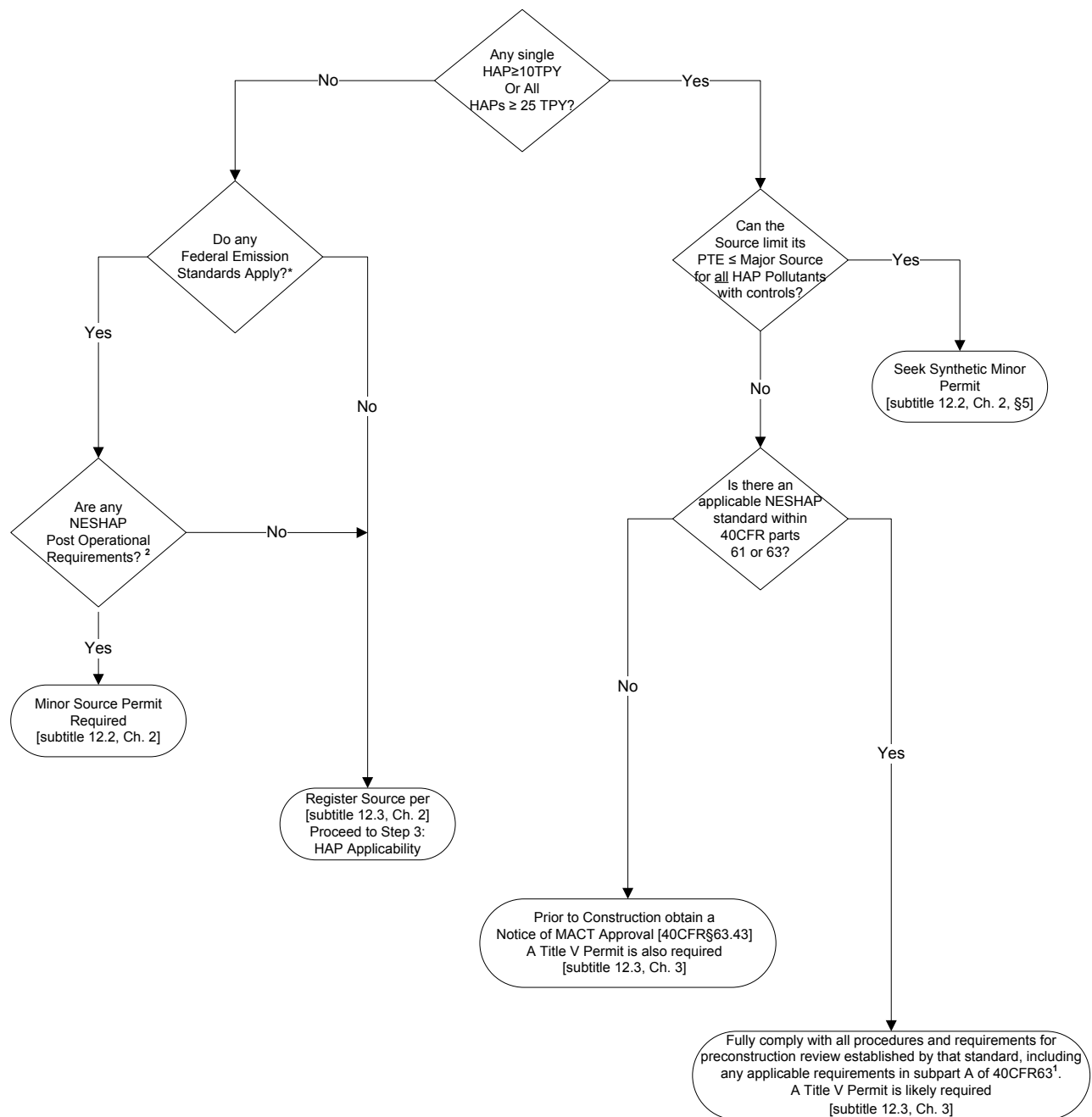

KEY:

ALE = Allowable Emissions
 MOD = Modifications
 PTE = Potential to Emit
 PAL = Plantwide Applicability Limit
 NSPS = New Source Performance Standards

* See subtitle 12.2, Ch. 1, §3b(8)

Step 3: MPTN Air Quality Program Permit Applicability Determination

Evaluate Applicability for HAP Pollutants



¹ Pre-purchase and Preconstruction requirements likely apply. MPTN AQP recommends that the owner/operator contact them prior to entering into any equipment purchase contracts even if a New Source Review Permit is not required.

* See subtitle 12.2, Ch. 1, §3b(8)

Appendix III

40 CFR Part 51
Appendix S

Disclaimer

This is not an official legal edition of the CFR. What follows had been extracted from the Electronic Code of Federal Regulations (e-CFR) on February 5, 2018 and formatted to facilitate reference. The e-CFR is an editorial compilation of CFR material and Federal Register amendments produced by the National Archives and Records Administration's Office of the Federal Register (OFR) and the Government Publishing Office. The OFR updates the material in the e-CFR on a daily basis.

Current eCFR Version of Appendix S

Appendix S to Part 51—Emission Offset Interpretative Ruling

I. Introduction

This appendix sets forth EPA's Interpretative Ruling on the preconstruction review requirements for Stationary Sources of air pollution (not including indirect sources) under 40 CFR subpart I and section 129 of the Clean Air Act Amendments of 1977, Public Law 95-95, (note under 42 U.S.C. 7502). A major new source or major modification which would locate in any area designated under section 107(d) of the Act as attainment or unclassifiable for ozone that is located in an ozone transport region or which would locate in an area designated in 40 CFR part 81, subpart C, as nonattainment for a pollutant for which the source or modification would be major may be allowed to construct only if the stringent conditions set forth below are met. These conditions are designed to insure that the new source's emissions will be controlled to the greatest degree possible; that more than equivalent offsetting emission reductions (*emission offsets*) will be obtained from existing sources; and that there will be progress toward achievement of the NAAQS.

For each area designated as exceeding a NAAQS (nonattainment area) under 40 CFR part 81, subpart C, or for any area designated under section 107(d) of the Act as attainment or unclassifiable for ozone that is located in an ozone transport region, this Interpretative Ruling will be superseded after June 30, 1979 (a) by preconstruction review provisions of the revised SIP, if the SIP meets the requirements of Part D, Title 1, of the Act; or (b) by a prohibition on construction under the applicable SIP and section 110(a)(2)(I) of the Act, if the SIP does not meet the requirements of Part D. The Ruling will remain in effect to the extent not superseded under the Act. This prohibition on major new source construction does not apply to a source whose permit to construct was applied for during a period when the SIP was in compliance with Part D, or before the deadline for having a revised SIP in effect that satisfies Part D.

The requirement of this Ruling shall not apply to any major Stationary Source or major modification that was not subject to the Ruling as in effect on January 16, 1979, if the owner or operator:

- A. Obtained all final Federal, State, and local preconstruction approvals or permits necessary under the applicable State Implementation Plan before August 7, 1980;
- B. Commenced construction within 18 months from August 7, 1980, or any earlier time required under the applicable State Implementation Plan; and
- C. Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable time.

II. Initial Screening Analyses and Determination of Applicable Requirements

A. *Definitions*—For the purposes of this Ruling:

1. **Stationary source** means any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.
2. (i) **Building, structure, facility or installation** means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (*i.e.*, which have the same two digit code) as described in the *Standard Industrial Classification Manual*, 1972, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively).
- (ii) Notwithstanding the provisions of paragraph II.A.2(i) of this section, building, structure, facility or installation means, for onshore activities under SIC Major Group 13: Oil and Gas Extraction, all of the pollutant-emitting activities included in Major Group 13 that are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant emitting activities shall be considered adjacent if they are located on the same surface site; or

if they are located on surface sites that are located within 1/4 mile of one another (measured from the center of the equipment on the surface site) and they share equipment. Shared equipment includes, but is not limited to, produced fluids storage tanks, phase separators, natural gas dehydrators or emissions control devices. Surface site, as used in this paragraph II.A.2(ii), has the same meaning as in 40 CFR 63.761.

3. **Potential to emit** means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.
4. (i) **Major stationary** source means:
 - (a) Any stationary source of air pollutants which emits, or has the potential to emit, 100 tons per year or more of a regulated NSP pollutant (as defined in paragraph II.A.31 of this Ruling), except that lower emissions thresholds shall apply in areas subject to subpart 2, subpart 3, or subpart 4 of part D, title I of the Act, according to paragraphs II.A.4(i)(a)(1) through (8) of this Ruling.
 - (1) 50 tons per year of volatile organic compounds in any serious ozone nonattainment area.
 - (2) 50 tons per year of volatile organic compounds in an area within an ozone transport region, except for any severe or extreme ozone nonattainment area.
 - (3) 25 tons per year of volatile organic compounds in any severe ozone nonattainment area.
 - (4) 10 tons per year of volatile organic compounds in any extreme ozone nonattainment area.
 - (5) 50 tons per year of carbon monoxide in any serious nonattainment area for carbon monoxide, where stationary sources contribute significantly to carbon monoxide levels in the area (as determined under rules issued by the Administrator)
 - (6) 70 tons per year of PM-10 in any serious nonattainment area for PM-10;
 - (7) 70 tons per year of PM2.5 in any serious nonattainment area for PM2.5.
 - (8) 70 tons per year of any individual PM2.5 precursor (as defined in paragraph II.A.31 of this Ruling) in any Serious nonattainment area for PM2.5.
 - (b) For the purposes of applying the requirements of paragraph IV. H of this Ruling to stationary sources of nitrogen oxides located in an ozone nonattainment area or in an ozone transport region, any stationary source which emits, or has the potential to emit, 100 tons per year or more of nitrogen oxides emissions, except that the emission thresholds in paragraphs II.A.4(i)(b)(1) through (6) of this Ruling apply in areas subject to subpart 2 of part D, title I of the Act.
 - (1) 100 tons per year or more of nitrogen oxides in any ozone nonattainment area classified as marginal or moderate.
 - (2) 100 tons per year or more of nitrogen oxides in any ozone nonattainment area classified as a transitional, submarginal, or incomplete or no data area, when such area is located in an ozone transport region.
 - (3) 100 tons per year or more of nitrogen oxides in any area designated under section 107(d) of the Act as attainment or unclassifiable for ozone that is located in an ozone transport region.
 - (4) 50 tons per year or more of nitrogen oxides in any serious nonattainment area for ozone.
 - (5) 25 tons per year or more of nitrogen oxides in any severe nonattainment area for ozone.
 - (6) 10 tons per year or more of nitrogen oxides in any extreme nonattainment area for ozone; or
 - (c) Any physical change that would occur at a stationary source not qualifying under paragraph II.A.4(i)(a) or (b) of this Ruling as a major stationary source, if the change would constitute a major stationary source by itself.
- (ii) A major stationary source that is major for volatile organic compounds or nitrogen oxides is major for ozone.

- (iii) The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this ruling whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources:
 - (a) Coal cleaning plants (with thermal dryers);
 - (b) Kraft pulp mills;
 - (c) Portland cement plants;
 - (d) Primary zinc smelters;
 - (e) Iron and steel mills;
 - (f) Primary aluminum ore reduction plants;
 - (g) Primary copper smelters;
 - (h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
 - (i) Hydrofluoric, sulfuric, or nitric acid plants;
 - (j) Petroleum refineries;
 - (k) Lime plants;
 - (l) Phosphate rock processing plants;
 - (m) Coke oven batteries;
 - (n) Sulfur recovery plants;
 - (o) Carbon black plants (furnace process);
 - (p) Primary lead smelters;
 - (q) Fuel conversion plants;
 - (r) Sintering plants;
 - (s) Secondary metal production plants;
 - (t) Chemical process plants—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
 - (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
 - (v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
 - (w) Taconite ore processing plants;
 - (x) Glass fiber processing plants;
 - (y) Charcoal production plants;
 - (z) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;
 - (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.
- 5. (i) **Major modification** means any physical change in or change in the method of operation of a major stationary source that would result in:
 - (a) A significant emissions increase of a regulated NSR pollutant (as defined in paragraph II.A.31 of this Ruling); and
 - (b) A significant net emissions increase of that pollutant from the major stationary source.
- (ii) Any significant emissions increase (as defined in paragraph II.A.23 of this Ruling) from any emissions units or net emissions increase (as defined in paragraph II.A.6 of this Ruling) at a major stationary source that is significant for volatile organic compounds shall be considered significant for ozone.
- (iii) A physical change or change in the method of operation shall not include:
 - (a) Routine maintenance, repair, and replacement;

- (b) Use of an alternative fuel or raw material by reason of an order under section 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- (c) Use of an alternative fuel by reason of an order or rule under section 125 of the Act;
- (d) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
- (e) Use of an alternative fuel or raw material by a stationary source which:
 - (1) The source was capable of accommodating before December 21, 1976, unless such change would be prohibited under any federally enforceable permit condition which was established after December 21, 1976, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or §51.166; or
 - (2) The source is approved to use under any permit issued under this ruling;
- (f) An increase in the hours of operation or in the production rate, unless such change is prohibited under any federally enforceable permit condition which was established after December 21, 1976 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or §51.166;
- (g) Any change in ownership at a stationary source.
- (iv) For the purpose of applying the requirements of paragraph IV.H of this Ruling to modifications at major stationary sources of nitrogen oxides located in ozone nonattainment areas or in ozone transport regions, whether or not subject with respect to ozone to subpart 2, part D, title I of the Act, any significant net emissions increase of nitrogen oxides is considered significant for ozone.
- (v) Any physical change in, or change in the method of operation of, a major stationary source of volatile organic compounds that results in any increase in emissions of volatile organic compounds from any discrete operation, emissions unit, or other pollutant emitting activity at the source shall be considered a significant net emissions increase and a major modification for ozone, if the major stationary source is located in an extreme ozone nonattainment area that is subject to subpart 2, part D, title I of the Act.
- (vi) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under paragraph IV.K of this ruling for a PAL for that pollutant. Instead, the definition at paragraph IV.K.2(viii) of this Ruling shall apply.
- (vii) Fugitive emissions shall not be included in determining for any of the purposes of this Ruling whether a physical change in or change in the method of operation of a major stationary source is a major modification, unless the source belongs to one of the source categories listed in paragraph II.A.4(iii) of this Ruling.

Effective Date Note: At 76 FR 17554, Mar. 30, 2011, part 51, appendix S, paragraph II.A.5 (vii) is stayed indefinitely.

- 6. (i) **Net emissions increase** means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:
 - (a) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph IV.J of this Ruling; and
 - (b) Any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases under this paragraph II.A.6(i)(b) shall be determined as provided in paragraph II.A.30 of this Ruling, except that paragraphs II.A.30(i)(c) and II.A.30(ii)(d) of this Ruling shall not apply.
- (ii) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:
 - (a) The date five years before construction on the particular change commences and
 - (b) The date that the increase from the particular change occurs.

- (iii) An increase or decrease in actual emissions is creditable only if the reviewing authority has not relied on it in issuing a permit for the source under this Ruling, which permit is in effect when the increase in actual emissions from the particular change occurs.
 - (iv) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
 - (v) A decrease in actual emissions is creditable only to the extent that:
 - (a) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;
 - (b) It is enforceable as a practical matter at and after the time that actual construction on the particular change begins;
 - (c) The reviewing authority has not relied on it in issuing any permit under regulations approved pursuant to 40 CFR 51.165; and
 - (d) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change.
 - (vi) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
 - (vii) Paragraph II.A.13(ii) of this Ruling shall not apply for determining creditable increases and decreases or after a change.
7. **Emissions unit** means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric utility steam generating unit as defined in paragraph II.A.21 of this Ruling. For purposes of this Ruling, there are two types of emissions units as described in paragraphs II.A.7(i) and (ii) of this Ruling.
- (i) A new emissions unit is any emissions unit which is (or will be) newly constructed and which has existed for less than 2 years from the date such emissions unit first operated.
 - (ii) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph II.A.7(i) of this Ruling.
8. **Secondary emissions** means emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. For the purpose of this Ruling, secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the stationary source or modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.
9. **Fugitive emissions** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
10. (i) **Significant** means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant and Emissions Rate

Carbon monoxide: 100 tons per year (tpy)

Nitrogen oxides: 40 tpy

Sulfur dioxide: 40 tpy

Ozone: 40 tpy of volatile organic compounds or nitrogen oxides

Lead: 0.6 tpy

Particulate matter: 25 tpy of particulate matter emissions

PM₁₀: 15 tpy

PM_{2.5}: 10 tpy of direct PM_{2.5} emissions; 40 tpy of sulfur dioxide emissions, 40 tpy of Nitrogen oxides emissions, or 40 tpy of Volatile organic compound emissions, to the extent that any such pollutant is defined as a precursor for PM_{2.5} in paragraph II.A.31 of this Ruling.

- (ii) Notwithstanding the significant emissions rate for ozone in paragraph II.A.10(i) of this Ruling, significant means, in reference to an emissions increase or a net emissions increase, any increase in actual emissions of volatile organic compounds that would result from any physical change in, or change in the method of operation of, a major stationary source locating in a serious or severe ozone nonattainment area that is subject to subpart 2, part D, title I of the Act, if such emissions increase of volatile organic compounds exceeds 25 tons per year.
 - (iii) For the purposes of applying the requirements of paragraph IV.H of this Ruling to modifications at major stationary sources of nitrogen oxides located in an ozone nonattainment area or in an ozone transport region, the significant emission rates and other requirements for volatile organic compounds in paragraphs II.A.10(i), (ii), and (v) of this Ruling shall apply to nitrogen oxides emissions.
 - (iv) Notwithstanding the significant emissions rate for carbon monoxide under paragraph II.A.10(i) of this Ruling, significant means, in reference to an emissions increase or a net emissions increase, any increase in actual emissions of carbon monoxide that would result from any physical change in, or change in the method of operation of, a major stationary source in a serious nonattainment area for carbon monoxide if such increase equals or exceeds 50 tons per year, provided the Administrator has determined that stationary sources contribute significantly to carbon monoxide levels in that area.
 - (v) Notwithstanding the significant emissions rates for ozone under paragraphs II.A.10(i) and (ii) of this Ruling, any increase in actual emissions of volatile organic compounds from any emissions unit at a major stationary source of volatile organic compounds located in an extreme ozone nonattainment area that is subject to subpart 2, part D, title I of the Act shall be considered a significant net emissions increase.
 - (vi) In any nonattainment area for PM_{2.5} in which a state must regulate Ammonia as a regulated NSR pollutant (as a PM_{2.5} precursor) as defined in paragraph II.A.31 of this Ruling, the reviewing authority shall define “significant” for Ammonia for that area and establish a record to document its supporting basis. All sources with modification projects with increases in Ammonia emissions that are not subject to Section IV of this Ruling must maintain records of the non-applicability of Section IV that reference the definition of “significant” for Ammonia that is established by the reviewing authority in the nonattainment area where the source is located.
11. **Allowable emissions** means the emissions rate calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
- (i) Applicable standards as set forth in 40 CFR parts 60 and 61;
 - (ii) Any applicable State Implementation Plan emissions limitation, including those with a future compliance date; or
 - (iii) The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.
12. **Federally enforceable** means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the State implementation plan and expressly requires adherence to any permit issued under such program.

13. (i) **Actual emissions** means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs II.A.13(ii) through (iv) of this Ruling, except that this definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL under paragraph IV.K of this Ruling. Instead, paragraphs II.A.24 and 30 of this Ruling shall apply for those purposes.
- (ii) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.
- (iii) The reviewing authority may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
- (iv) For any emissions unit that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
14. **Construction** means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) that would result in a change in emissions.
15. **Commence** as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:
- (i) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- (ii) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.
16. **Necessary preconstruction approvals or permits** means those permits or approvals required under Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the applicable State Implementation Plan.
17. **Begin actual construction** means, in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operating this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.
18. **Lowest achievable emission rate (LAER)** means, for any source, the more stringent rate of emissions based on the following:
- (i) The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
- (ii) The most stringent emissions limitation which is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under applicable new source standards of performance.
19. **Resource recovery facility** means any facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse. Energy conversion facilities must utilize solid waste to provide more than 50 percent of the heat input to be considered a resource recovery facility under this Ruling.

20. ***Volatile organic compounds (VOC)*** is as defined in §51.100(s) of this part.
21. ***Electric utility steam generating unit*** means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.
22. ***Pollution prevention*** means any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants (including fugitive emissions) and other pollutants to the environment prior to recycling, treatment, or disposal; it does not mean recycling (other than certain “in-process recycling” practices), energy recovery, treatment, or disposal.
23. ***Significant emissions increase*** means, for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph II.A.10 of this Ruling) for that pollutant.
24. (i) ***Projected actual emissions*** means, the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit of that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.
- (ii) In determining the projected actual emissions under paragraph II.A.24(i) of this Ruling before beginning actual construction, the owner or operator of the major stationary source:
- (a) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved plan; and
- (b) Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions; and
- (c) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions under paragraph II.A.30 of this Ruling and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or,
- (d) In lieu of using the method set out in paragraphs II.A.24(ii)(a) through (c) of this Ruling, may elect to use the emissions unit's potential to emit, in tons per year, as defined under paragraph II.A.3 of this Ruling.
25. ***Nonattainment major new source review (NSR) program*** means a major source preconstruction permit program that implements Sections I through VI of this Ruling, or a program that has been approved by the Administrator and incorporated into the plan to implement the requirements of §51.165 of this part. Any permit issued under such a program is a major NSR permit.
26. ***Continuous emissions monitoring system (CEMS)*** means all of the equipment that may be required to meet the data acquisition and availability requirements of this Ruling, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.
27. ***Predictive emissions monitoring system (PEMS)*** means all of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O₂ or CO₂ concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.
28. ***Continuous parameter monitoring system (CPMS)*** means all of the equipment necessary to meet the data acquisition and availability requirements of this Ruling, to monitor process and control device

operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O₂ or CO₂ concentrations), and to record average operational parameter value(s) on a continuous basis.

29. **Continuous emissions rate monitoring system (CERMS)** means the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).
30. **Baseline actual emissions** means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs II.A.30(i) through (iv) of this Ruling.
 - (i) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation.
 - (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
 - (b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.
 - (c) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.
 - (d) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph II.A.30(i)(b) of this Ruling.
 - (ii) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the reviewing authority for a permit required either under this Ruling or under a plan approved by the Administrator, whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990.
 - (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
 - (b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.
 - (c) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under part 63 of this chapter, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan.
 - (d) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.
 - (e) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this

amount if required by paragraphs II.A.30(ii)(b) and (c) of this Ruling.

- (iii) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.
- (iv) For a PAL for a major stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in paragraph II.A.30(i) of this Ruling, for other existing emissions units in accordance with the procedures contained in paragraph II.A.30(ii) of this Ruling, and for a new emissions unit in accordance with the procedures contained in paragraph II.A.30(iii) of this Ruling.

31. ***Regulated NSR pollutant***, for purposes of this Ruling, means the following:

- (i) Nitrogen oxides or any volatile organic compounds;
- (ii) Any pollutant for which a national ambient air quality standard has been promulgated. This includes, but is not limited to, the following:
 - (a) PM_{2.5} emissions and PM₁₀ emissions shall include gaseous emissions from a source or activity, which condense to form particulate matter at ambient temperatures. On or after January 1, 2011, such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM_{2.5} and PM₁₀ in permits issued under this ruling. Compliance with emissions limitations for PM_{2.5} and PM₁₀ issued prior to this date shall not be based on condensable particulate matter unless required by the terms and conditions of the permit or the applicable implementation plan. Applicability determinations made prior to this date without accounting for condensable particulate matter shall not be considered in violation of this section unless the applicable implementation plan required condensable particulate matter to be included.
 - (b) Any pollutant that is identified under this paragraph II.A.31(ii)(2) as a constituent or precursor of a general pollutant listed under paragraph II.A.31(i) or (ii) of this Ruling, provided that such constituent or precursor pollutant may only be regulated under NSR as part of regulation of the general pollutant. Precursors identified by the Administrator for purposes of NSR are the following:
 - (1) Volatile organic compounds and nitrogen oxides are precursors to ozone in all ozone nonattainment areas.
 - (2) Sulfur dioxide and Nitrogen oxides are regulated as precursors to PM_{2.5} in all PM_{2.5} nonattainment areas.
 - (3) For any area that was designated nonattainment for PM_{2.5} on or before April 15, 2015, Volatile organic compounds and Ammonia shall be regulated as precursors to PM_{2.5} beginning on April 15, 2017, with respect to any permit issued for PM_{2.5}, unless the following conditions are met: The state submits a SIP for the Administrator's review containing the state's preconstruction review provisions for PM_{2.5} consistent with §51.165 and a complete NNSR precursor demonstration consistent with §51.1006(a)(3); and such SIP is determined to be complete by the Administrator or deemed to be complete by operation of law in accordance with section 110(k)(1)(B) of the Act by April 15, 2017. If these conditions are met, the precursor(s) addressed by the NNSR precursor demonstration (Volatile organic compounds, Ammonia, or both) shall not be regulated as a precursor to PM_{2.5} in such area. If the Administrator subsequently disapproves the state's preconstruction review provisions for PM_{2.5} and the NNSR precursor demonstration, the precursor(s) addressed by the NNSR precursor demonstration shall be regulated as a precursor to PM_{2.5} under this Ruling in such area as of April 15, 2017, or the effective date of the disapproval, whichever date is later.
 - (4) For any area that is designated nonattainment for PM_{2.5} after April 15, 2015, and was not already designated nonattainment for PM_{2.5} on or immediately prior to such date, Volatile organic compounds and Ammonia shall be regulated as precursors to PM_{2.5} under this Ruling beginning 24 months from the date of designation as nonattainment for PM_{2.5} with respect to any permit issued for PM_{2.5}, unless the following conditions are met: the state submits a SIP for the Administrator's review which contains the state's preconstruction

review provisions for PM_{2.5} consistent with §51.165 and a complete NNSR precursor demonstration consistent with §51.1006(a)(3); and such SIP is determined to be complete by the Administrator or deemed to be complete by operation of law in accordance with section 110(k)(1)(B) of the Act by the date 24 months from the date of designation. If these conditions are met, the precursor(s) addressed by the NNSR precursor demonstration (Volatile organic compounds, Ammonia, or both) shall not be regulated as a precursor to PM_{2.5} in such area. If the Administrator subsequently disapproves the state's preconstruction review provisions for PM_{2.5} and the NNSR precursor demonstration, the precursor(s) addressed by the NNSR precursor demonstration shall be regulated as a precursor to PM_{2.5} under this Ruling in such area as of the date 24 months from the date of designation, or the effective date of the disapproval, whichever date is later.

32. **Reviewing authority** means the State air pollution control agency, local agency, other State agency, Indian tribe, or other agency issuing permits under this Ruling or authorized by the Administrator to carry out a permit program under §§51.165 and 51.166 of this part, or the Administrator in the case of EPA-implemented permit programs under this Ruling or under §52.21 of this chapter.
33. **Project** means a physical change in, or change in the method of operation of, an existing major stationary source.
34. **Best available control technology (BACT)** means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR part 60 or 61. If the reviewing authority determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.
35. **Prevention of Significant Deterioration (PSD) permit** means any permit that is issued under a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of §51.166 of this chapter, or under the program in §52.21 of this chapter.
36. **Federal Land Manager** means, with respect to any lands in the United States, the Secretary of the department with authority over such lands.

B. *Review of all sources for emission limitation compliance.* The reviewing authority must examine each proposed major new source and proposed major modification¹ to determine if such a source will meet all applicable emission requirements in the SIP, any applicable new source performance standard in part 60 or any national Emission Standard for hazardous air pollutants in part 61 or part 63 of this chapter. If the reviewing authority determines that the proposed major new source cannot meet the applicable emission requirements, the permit to construct must be denied.

¹ Hereafter the term *source* will be used to denote both any source and any modification.

C. *Review of specified sources for air quality impact.* In addition, the reviewing authority must determine whether the major stationary source or major modification would be constructed in an area designated in 40 CFR 81.300 *et seq.* as nonattainment for a pollutant for which the stationary source or modification is major.

D.-E. [Reserved]

F. *Fugitive emission sources.* Section IV.A. of this Ruling shall not apply to a source or modification that would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and such source does not belong to any of the following categories:

- (1) Coal cleaning plants (with thermal dryers);
- (2) Kraft pulp mills;
- (3) Portland cement plants;
- (4) Primary zinc smelters;
- (5) Iron and steel mills;
- (6) Primary aluminum ore reduction plants;
- (7) Primary copper smelters;
- (8) Municipal incinerators capable of charging more than 250 tons of refuse per day;
- (9) Hydrofluoric, sulfuric, or nitric acid plants;
- (10) Petroleum refineries;
- (11) Lime plants;
- (12) Phosphate rock processing plants;
- (13) Coke oven batteries;
- (14) Sulfur recovery plants;
- (15) Carbon black plants (furnace process);
- (16) Primary lead smelters;
- (17) Fuel conversion plants;
- (18) Sintering plants;
- (19) Secondary metal production plants;
- (20) Chemical process plants—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
- (21) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
- (22) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
- (23) Taconite ore processing plants;
- (24) Glass fiber processing plants;
- (25) Charcoal production plants;
- (26) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;
- (27) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.

G. *Secondary emissions.* Secondary emissions need not be considered in determining whether the emission rates in Section II.C. above would be exceeded. However, if a source is subject to this Ruling on the basis of the direct emissions from the source, the applicable conditions of this Ruling must also be met for secondary emissions. However, secondary emissions may be exempt from Conditions 1 and 2 of Section IV. Also, since EPA's authority to perform or require indirect source review relating to mobile sources regulated under Title II of the Act (motor vehicles and aircraft) has been restricted by statute, consideration of the indirect impacts of motor vehicles and aircraft traffic is not required under this Ruling.

III. Sources Locating in Designated Clean or Unclassifiable Areas Which Would Cause or Contribute to a Violation of a National Ambient Air Quality Standard

A. This section applies only to major sources or major modifications which would locate in an area designated in 40 CFR 81.300 *et seq.* as attainment or unclassifiable in a State where EPA has not yet approved the State preconstruction review program required by 40 CFR 51.165(b), if the source or modification would exceed the following significance levels at any locality that does not meet the NAAQS:

| Pollutant | Annual | Averaging time (hours) | | | |
|-------------------|-----------------------|------------------------|-----------------------|----------------------|---------------------|
| | | 24 | 8 | 3 | 1 |
| SO ₂ | 1.0 µg/m ³ | 5 µg/m ³ | | 25 µg/m ³ | |
| PM ₁₀ | 1.0 µg/m ³ | 5 µg/m ³ | | | |
| PM _{2.5} | 0.3 µg/m ³ | 1.2 µg/m ³ | | | |
| NO ₂ | 1.0 µg/m ³ | | | | |
| CO | | | 0.5 mg/m ³ | | 2 mg/m ³ |

B. Sources to which this section applies must meet Conditions 1, 2, and 4 of Section IV.A. of this ruling.² However, such sources may be exempt from Condition 3 of Section IV.A. of this ruling.

C. *Review of specified sources for air quality impact.* For *stable* air pollutants (*i.e.*, SO₂, particulate matter and CO), the determination of whether a source will cause or contribute to a violation of an NAAQS generally should be made on a case-by-case basis as of the proposed new source's start-up date using the source's allowable emissions in an atmospheric simulation model (unless a source will clearly impact on a receptor which exceeds an NAAQS).

For sources of nitrogen oxides, the initial determination of whether a source would cause or contribute to a violation of the NAAQS for NO₂ should be made using an atmospheric simulation model assuming all the nitric oxide emitted is oxidized to NO₂ by the time the plume reaches ground level. The initial concentration estimates may be adjusted if adequate data are available to account for the expected oxidation rate.

For ozone, sources of volatile organic compounds, locating outside a designated ozone nonattainment area, will be presumed to have no significant impact on the designated nonattainment area. If ambient monitoring indicates that the area of source location is in fact nonattainment, then the source may be permitted under the provisions of any State plan adopted pursuant to section 110(a)(2)(D) of the Act until the area is designated nonattainment and a State Implementation Plan revision is approved. If no State plan pursuant to section 110(a)(2)(D) has been adopted and approved, then this Ruling shall apply.

² The discussion in this paragraph is a proposal, but represents EPA's interim policy until final rulemaking is completed.

As noted above, the determination as to whether a source would cause or contribute to a violation of an NAAQS should be made as of the new source's start-up date. Therefore, if a designated nonattainment area is projected to be an attainment area as part of an approved SIP control strategy by the new source start-up date, offsets would not be required if the new source would not cause a new violation.

D. *Sources locating in clean areas*, but would cause a new violating of an NAAQS. If the reviewing authority finds that the emissions from a proposed source would cause a new violation of an NAAQS, but would not contribute to an existing violation, approval may be granted only if both of the following conditions are met:

Condition 1. The new source is required to meet a more stringent emission limitation³ and/or the control of existing sources below allowable levels is required so that the source will not cause a violation of any NAAQS.

Condition 2. The new emission limitations for the new source as well as any existing sources affected must be enforceable in accordance with the mechanisms set forth in Section V of this appendix.

IV. Sources That Would Locate in a Designated Nonattainment Area

A. *Conditions for approval.* If the reviewing authority finds that the major stationary source or major modification would be constructed in an area designated in 40 CFR 81.300 *et seq* as nonattainment for a pollutant for which the stationary source or modification is major, approval may be granted only if the following conditions are met:

Condition 1. The new source is required to meet an emission Limitation⁴ which specifies the lowest achievable emission rate for such source.

Condition 2. The applicant must certify that all existing major sources owned or operated by the applicant (or any entity controlling, controlled by, or under common control with the applicant) in the same State as the proposed source are in compliance with all applicable emission limitations and standards under the Act (or are in compliance with an expeditious schedule which is Federally enforceable or contained in a court decree).

³ If the reviewing authority determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an enforceable numerical emission standard infeasible, the authority may instead prescribe a design, operational or equipment standard. In such cases, the reviewing authority shall make its best estimate as to the emission rate that will be achieved and must specify that rate in the required submission to EPA (see Part V). Any permits issued without an enforceable numerical emission standard must contain enforceable conditions which assure that the design characteristics or equipment will be properly maintained (or that the operational conditions will be properly performed) so as to continuously achieve the assumed degree of control. Such conditions shall be enforceable as emission limitations by private parties under section 304. Hereafter, the term *emission limitation* shall also include such design, operational, or equipment standards.

⁴ If the reviewing authority determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an enforceable numerical emission standard infeasible, the authority may instead prescribe a design, operational or equipment standard. In such cases, the reviewing authority shall make its best estimate as to the emission rate that will be achieved and must specify that rate in the required submission to EPA (see Part V). Any permits issued without an enforceable numerical emission standard must contain enforceable conditions which assure that the design characteristics or equipment will be properly maintained (or that the operational conditions will be properly performed) so as to continuously achieve the assumed degree of control. Such conditions shall be enforceable as emission limitations by private parties under section 304. Hereafter, the term *emission limitation* shall also include such design, operational, or equipment standards.

Condition 3. Emission reductions (*offsets*) from existing sources⁵ in the area of the proposed source (whether or not under the same ownership) are required such that there will be reasonable progress toward attainment of the applicable NAAQS.⁶ Except as provided in paragraph IV.G.5 of this Ruling (addressing PM_{2.5} and its precursors), only intrapollutant emission offsets will be acceptable (e.g., hydrocarbon increases may not be offset against SO₂ reductions).

Condition 4. The emission offsets will provide a positive net air quality benefit in the affected area (see Section IV.D. below). Atmospheric simulation modeling is not necessary for volatile organic compounds and NO_x. Fulfillment of Condition 3 and Section IV.D. will be considered adequate to meet this condition.

Condition 5. The permit applicant shall conduct an analysis of alternative sites, sizes, production processes and environmental control techniques for such proposed source that demonstrates that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification.

B. *Exemptions from certain conditions.* The reviewing authority may exempt the following sources from Condition 1 under Section III or Conditions 3 and 4. Section IV.A.:

- (i) Resource recovery facilities burning municipal solid waste, and
- (ii) sources which must switch fuels due to lack of adequate fuel supplies or where a source is required to be modified as a result of EPA regulations (e.g., lead-in-fuel requirements) and no exemption from such regulation is available to the source. Such an exemption may be granted only if:
 - 1. The applicant demonstrates that it made its best efforts to obtain sufficient emission offsets to comply with Condition 1 under Section III or Conditions 3 and 4 under Section IV.A. and that such efforts were unsuccessful;
 - 2. The applicant has secured all available emission offsets; and
 - 3. The applicant will continue to seek the necessary emission offsets and apply them when they become available.

Such an exemption may result in the need to revise the SIP to provide additional control of existing sources.

Temporary emission sources, such as pilot plants, portable facilities which will be relocated outside of the nonattainment area after a short period of time, and emissions resulting from the construction phase of a new source, are exempt from Conditions 3 and 4 of this section.

⁵ Subject to the provisions of paragraph IV.C of this Ruling.

⁶ The discussion in this paragraph is a proposal, but represents EPA's interim policy until final rulemaking is completed.

C. *Baseline for determining credit for emission and air quality offsets.* The baseline for determining credit for emission and air quality offsets will be the SIP emission limitations in effect at the time the application to construct or modify a source is filed. Thus, credit for emission offset purposes may be allowable for existing control that goes beyond that required by the SIP. Emission offsets generally should be made on a pounds per hour basis when all facilities involved in the emission offset calculations are operating at their maximum expected or allowed production rate. The reviewing agency should specify other averaging periods (e.g., tons per year) in addition to the pounds per hour basis if necessary to carry out the intent of this Ruling. When offsets are calculated on a tons per year basis, the baseline emissions for existing sources providing the offsets should be calculated using the actual annual operating hours for the previous one or two year period (or other appropriate period if warranted by cyclical business conditions). Where the SIP requires certain hardware controls in lieu of an emission limitation (e.g., floating roof tanks for petroleum storage), baseline allowable emissions should be based on actual operating conditions for the previous one or two year period (*i.e.*, actual throughput and vapor pressures) in conjunction with the required hardware controls.

1. *No meaningful or applicable SIP requirement.* Where the applicable SIP does not contain an emission limitation for a source or source category, the emission offset baseline involving such sources shall be the actual emissions determined in accordance with the discussion above regarding operating conditions.

Where the SIP emission limit allows greater emissions than the uncontrolled emission rate of the source (as when a State has a single particulate emission limit for all fuels), emission offset credit will be allowed only for control below the uncontrolled emission rate.

2. *Combustion of fuels.* Generally, the emissions for determining emission offset credit involving an existing fuel combustion source will be the allowable emissions under the SIP for the type of fuel being burned at the time the new source application is filed (*i.e.*, if the existing source has switched to a different type of fuel at some earlier date, any resulting emission reduction [either actual or allowable] shall not be used for emission offset credit). If the existing source commits to switch to a cleaner fuel at some future date, emission offset credit based on the allowable emissions for the fuels involved is not acceptable unless the permit is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emission reduction should the source switch back to a dirtier fuel at some later date. The reviewing authority should ensure that adequate long-term supplies of the new fuel are available before granting emission offset credit for fuel switches.
3. *Emission Reduction Credits from Shutdowns and Curtailments.*
 - (i) Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours may be generally credited for offsets if they meet the requirements in paragraphs IV.C.3.i.1. through 2 of this section.
 - (1) Such reductions are surplus, permanent, quantifiable, and federally enforceable.
 - (2) The shutdown or curtailment occurred after the last day of the base year for the SIP planning process. For purposes of this paragraph, a reviewing authority may choose to consider a prior shutdown or curtailment to have occurred after the last day of the base year if the projected emissions inventory used to develop the attainment demonstration explicitly includes the emissions from such previously shutdown or curtailed emission units. However, in no event may credit be given for shutdowns that occurred before August 7, 1977.
 - (ii) Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours and that do not meet the requirements in paragraphs IV.C.3.i.1. through 2 of this section may be generally credited only if:
 - (1) The shutdown or curtailment occurred on or after the date the new source permit application is filed; or
 - (2) The applicant can establish that the proposed new source is a replacement for the shutdown or curtailed source, and the emissions reductions achieved by the shutdown or curtailment met the requirements of paragraphs IV.C.3.i.1. through 2 of this section.

4. *Credit for VOC substitution.* As set forth in the Agency's "Recommended Policy on Control of Volatile Organic Compounds" (42 FR 35314, July 8, 1977), EPA has found that almost all non-methane VOCs are photochemically reactive and that low reactivity VOCs eventually form as much ozone as the highly reactive VOCs. Therefore, no emission offset credit may be allowed for replacing one VOC compound with another of lesser reactivity, except for those compounds listed in Table 1 of the above policy statement.
5. *"Banking" of emission offset credit.* For new sources obtaining permits by applying offsets after January 16, 1979, the reviewing authority may allow offsets that exceed the requirements of reasonable progress toward attainment (Condition 3) to be "banked" (*i.e.*, saved to provide offsets for a source seeking a permit in the future) for use under this Ruling. Likewise, the reviewing authority may allow the owner of an existing source that reduces its own emissions to bank any resulting reductions beyond those required by the SIP for use under this Ruling, even if none of the offsets are applied immediately to a new source permit. A reviewing authority may allow these banked offsets to be used under the preconstruction review program required by Part D, as long as these banked emissions are identified and accounted for in the SIP control strategy. A reviewing authority may not approve the construction of a source using banked offsets if the new source would interfere with the SIP control strategy or if such use would violate any other condition set forth for use of offsets. To preserve banked offsets, the reviewing authority should identify them in either a SIP revision or a permit, and establish rules as to how and when they may be used.
6. *Offset credit for meeting NSPS or NESHAPS.* Where a source is subject to an emission limitation established in a New Source Performance Standard (NSPS) or a National Emission Standard for Hazardous Air Pollutants (NESHAPS), (*i.e.*, requirements under sections 111 and 112, respectively, of the Act), and a different SIP limitation, the more stringent limitation shall be used as the baseline for determining credit for emission and air quality offsets. The difference in emissions between the SIP and the NSPS or NESHAPS, for such source may not be used as offset credit. However, if a source were not subject to an NSPS or NESHAPS, for example if its construction had commenced prior to the proposal of an NSPS or NESHAPS for that source category, offset credit can be permitted for tightening the SIP to the NSPS or NESHAPS level for such source.

D. *Location of offsetting emissions.* The owner or operator of a new or modified major stationary source may comply with any offset requirement in effect under this Ruling for increased emissions of any air pollutant only by obtaining emissions reductions of such air pollutant from the same source or other sources in the same nonattainment area, except that the reviewing authority may allow the owner or operator of a source to obtain such emissions reductions in another nonattainment area if the conditions in IV.D.1 and 2 are met.

1. The other area has an equal or higher nonattainment classification than the area in which the source is located.
2. Emissions from such other area contribute to a violation of the national ambient air quality standard in the nonattainment area in which the source is located.

E. *Reasonable further progress.* Permits to construct and operate may be issued if the reviewing authority determines that, by the time the source is to commence operation, sufficient offsetting emissions reductions have been obtained, such that total allowable emissions from existing sources in the region, from new or modified sources which are not major emitting facilities, and from the proposed source will be sufficiently less than total emissions from existing sources prior to the application for such permit to construct or modify so as to represent (when considered together with the plan provisions required under CAA section 172) reasonable further progress (as defined in CAA section 171).

F. *Source obligation.* At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of this Ruling shall apply to the source or modification as though construction had not yet commenced on the source or modification.

G. Offset Ratios.

1. In meeting the emissions offset requirements of paragraph IV.A, Condition 3 of this Ruling, the ratio of total actual emissions reductions to the emissions increase shall be at least 1:1 unless an alternative ratio is provided for the applicable nonattainment area in paragraphs IV.G.2 through IV.G.4.
2. In meeting the emissions offset requirements of paragraph IV.A, Condition 3 of this Ruling for ozone nonattainment areas that are subject to subpart 2, part D, title I of the Act, the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be as follows:
 - (i) In any marginal nonattainment area for ozone—at least 1.1:1;
 - (ii) In any moderate nonattainment area for ozone—at least 1.15:1;
 - (iii) In any serious nonattainment area for ozone—at least 1.2:1;
 - (iv) In any severe nonattainment area for ozone—at least 1.3:1 (except that the ratio may be at least 1.2:1 if the State also requires all existing major sources in such nonattainment area to use BACT for the control of VOC); and
 - (v) In any extreme nonattainment area for ozone—at least 1.5:1 (except that the ratio may be at least 1.2:1 if the State also requires all existing major sources in such nonattainment area to use BACT for the control of VOC); and
3. Notwithstanding the requirements of paragraph IV.G.2 of this Ruling for meeting the requirements of paragraph IV.A, Condition 3 of this Ruling, the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be at least 1.15:1 for all areas within an ozone transport region that is subject to subpart 2, part D, title I of the Act, except for serious, severe, and extreme ozone nonattainment areas that are subject to subpart 2, part D, title I of the Act.
4. In meeting the emissions offset requirements of paragraph IV.A, Condition 3 of this Ruling for ozone nonattainment areas that are subject to subpart 1, part D, title I of the Act (but are not subject to subpart 2, part D, title I of the Act, including 8-hour ozone nonattainment areas subject to 40 CFR 51.902(b)), the ratio of total actual emissions reductions of VOC to the emissions increase of VOC shall be at least 1:1.
5. *Interpollutant offsetting.* In meeting the emissions offset requirements of paragraph IV.A, Condition 3 of this Ruling, the emissions offsets obtained shall be for the same regulated NSR pollutant unless interpollutant offsetting is permitted for a particular pollutant as specified in this paragraph IV.G.5.
 - (i) The offset requirements of paragraph IV.A, Condition 3 of this Ruling for emissions of the ozone precursors NO_x and VOC may be satisfied by offsetting reductions of emissions of either of those precursors, if all other requirements for such offsets are also satisfied.
 - (ii) The offset requirements of paragraph IV.A, Condition 3 of this Ruling for direct PM_{2.5} emissions or emissions of precursors of PM_{2.5} may be satisfied by offsetting reductions of direct PM_{2.5} emissions or emissions of any PM_{2.5} precursor identified under paragraph II.A.31 (iii) of this Ruling if such offsets comply with an interprecursor trading hierarchy and ratio approved by the Administrator.

H. *Additional provisions for emissions of nitrogen oxides in ozone transport regions and nonattainment areas.* The requirements of this Ruling applicable to major stationary sources and major modifications of volatile organic compounds shall apply to nitrogen oxides emissions from major stationary sources and major modifications of nitrogen oxides in an ozone transport region or in any ozone nonattainment area, except in ozone nonattainment areas where the Administrator has granted a NO_x waiver applying the standards set forth under 182(f) and the waiver continues to apply.

I. Applicability procedures.

1. To determine whether a project constitutes a major modification, the reviewing authority shall apply the principles set out in paragraphs IV.I.1(i) through (v) of this Ruling.
 - (i) Except as otherwise provided in paragraph IV.I.2 of this Ruling, and consistent with the definition of

major modification contained in paragraph II.A.5 of this Ruling, a project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases—a significant emissions increase (as defined in paragraph II.A.23 of this Ruling), and a significant net emissions increase (as defined in paragraphs II.A.6 and 10 of this Ruling). The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.

- (ii) The procedure for calculating (before beginning actual construction) whether a significant emissions increase (*i.e.*, the first step of the process) will occur depends upon the type of emissions units being modified, according to paragraphs IV.I.1(iii) through (v) of this Ruling. The procedure for calculating (before beginning actual construction) whether a significant net emissions increase will occur at the major stationary source (*i.e.*, the second step of the process) is contained in the definition in paragraph II.A.6 of this Ruling. Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.
 - (iii) *Actual-to-projected-actual applicability test for projects that only involve existing emissions units.* A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in paragraph II.A.24 of this Ruling) and the baseline actual emissions (as defined in paragraphs II.A.30(i) and (ii) of this Ruling, as applicable), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph II.A.10 of this Ruling).
 - (iv) *Actual-to-potential test for projects that only involve construction of a new emissions unit(s).* A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in paragraph II.A.3 of this Ruling) from each new emissions unit following completion of the project and the baseline actual emissions (as defined in paragraph II.A.30(iii) of this Ruling) of these units before the project equals or exceeds the significant amount for that pollutant (as defined in paragraph II.A.10 of this Ruling).
 - (v) *Hybrid test for projects that involve multiple types of emissions units.* A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in paragraphs IV.I.1(iii) through (iv) of this Ruling as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant (as defined in paragraph II.A.10 of this Ruling).
2. For any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with requirements under paragraph IV.K of this Ruling.

J. *Provisions for projected actual emissions.* Except as otherwise provided in paragraph IV.J.6(ii) of this Ruling, the provisions of this paragraph IV.J apply with respect to any regulated NSR pollutant emitted from projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility, within the meaning of paragraph IV.J.6 of this Ruling, that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant, and the owner or operator elects to use the method specified in paragraphs II.A.24(ii)(a) through (c) of this Ruling for calculating projected actual emissions.

- 1. Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
 - (i) A description of the project;
 - (ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
 - (iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph II.A.24(ii)(c) of this Ruling and an explanation for why such amount was excluded, and any netting calculations, if applicable.

2. If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in paragraph IV.J.1 of this Ruling to the reviewing authority. Nothing in this paragraph IV.J.2 shall be construed to require the owner or operator of such a unit to obtain any determination from the reviewing authority before beginning actual construction.
 3. The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions units identified in paragraph IV.J.1(ii) of this Ruling; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.
 4. If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority within 60 days after the end of each year, during which records must be generated under paragraph IV.J.3 of this Ruling setting out the unit's annual emissions during the year that preceded submission of the report.
 5. If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the reviewing authority if the annual emissions, in tons per year, from the project identified in paragraph IV.J.1 of this Ruling, exceed the baseline actual emissions (as documented and maintained pursuant to paragraph IV.J.1(iii) of this Ruling) by a significant amount (as defined in paragraph II.A.10 of this Ruling) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph IV.J.1(iii) of this Ruling. Such report shall be submitted to the reviewing authority within 60 days after the end of such year. The report shall contain the following:
 - (i) The name, address and telephone number of the major stationary source;
 - (ii) The annual emissions as calculated pursuant to paragraph IV.J.3 of this Ruling; and
 - (iii) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).
 6. A “reasonable possibility” under paragraph IV.J of this Ruling occurs when the owner or operator calculates the project to result in either:
 - (i) A projected actual emissions increase of at least 50 percent of the amount that is a “significant emissions increase,” as defined under paragraph II.A.23 of this Ruling (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant; or
 - (ii) A projected actual emissions increase that, added to the amount of emissions excluded under paragraph II.A.24(ii)(c), sums to at least 50 percent of the amount that is a “significant emissions increase,” as defined under paragraph II.A.23 of this Ruling (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of paragraph IV.J.6(ii) of this Ruling, and not also within the meaning of paragraph IV.J.6(i) of this Ruling, then provisions IV.J.2 through IV.J.5 do not apply to the project.
 7. The owner or operator of the source shall make the information required to be documented and maintained pursuant to this paragraph IV.J of this Ruling available for review upon a request for inspection by the reviewing authority or the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of this chapter.
- K. *Actuals PALs.* The provisions in paragraphs IV.K.1 through 15 of this Ruling govern actuals PALs.
1. Applicability.
 - (i) The reviewing authority may approve the use of an actuals PAL for any existing major stationary source (except as provided in paragraph IV.K.1(ii) of this Ruling) if the PAL meets the requirements in

paragraphs IV.K.1 through 15 of this Ruling. The term “PAL” shall mean “actuals PAL” throughout paragraph IV.K of this Ruling.

- (ii) The reviewing authority shall not allow an actuals PAL for VOC or NO_x for any major stationary source located in an extreme ozone nonattainment area.
 - (iii) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs IV.K.1 through 15 of this Ruling, and complies with the PAL permit:
 - (a) Is not a major modification for the PAL pollutant;
 - (b) Does not have to be approved through a nonattainment major NSR program; and
 - (c) Is not subject to the provisions in paragraph IV.F of this Ruling (restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of a nonattainment major NSR program).
 - (iv) Except as provided under paragraph IV.K.1(iii)(c) of this Ruling, a major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.
2. *Definitions.* For the purposes of this paragraph IV.K, the definitions in paragraphs IV.K.2(i) through (xi) of this Ruling apply. When a term is not defined in these paragraphs, it shall have the meaning given in paragraph II.A of this Ruling or in the Act.
- (i) **Actuals PAL** for a major stationary source means a PAL based on the baseline actual emissions (as defined in paragraph II.A.30 of this Ruling) of all emissions units (as defined in paragraph II.A.7 of this Ruling) at the source, that emit or have the potential to emit the PAL pollutant.
 - (ii) **Allowable emissions** means “allowable emissions” as defined in paragraph II.A.11 of this Ruling, except as this definition is modified according to paragraphs IV.K.2(ii)(a) through (b) of this Ruling.
 - (a) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.
 - (b) An emissions unit's potential to emit shall be determined using the definition in paragraph II.A.3 of this Ruling, except that the words “enforceable as a practical matter” should be added after “federally enforceable.”
 - (iii) **Small emissions unit** means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in paragraph II.A.10 of this Ruling or in the Act, whichever is lower.
 - (iv) **Major emissions unit** means:
 - (a) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area; or
 - (b) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the Act for nonattainment areas. For example, in accordance with the definition of major stationary source in section 182(c) of the Act, an emissions unit would be a major emissions unit for VOC if the emissions unit is located in a serious ozone nonattainment area and it emits or has the potential to emit 50 or more tons of VOC per year.
 - (v) **Plantwide applicability limitation (PAL)** means an emission limitation expressed in tons per year, for a pollutant at a major stationary source, that is enforceable as a practical matter and established source-wide in accordance with paragraphs IV.K.1 through 15 of this Ruling.
 - (vi) **PAL effective date** generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit which is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
 - (vii) **PAL effective period** means the period beginning with the PAL effective date and ending 10 years

later.

- (viii) **PAL major modification** means, notwithstanding paragraphs II.A.5 and 6 of this Ruling (the definitions for major modification and net emissions increase), any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.
 - (ix) **PAL permit** means the permit issued under this Ruling, the major NSR permit, the minor NSR permit, or the State operating permit under a program that is approved into the plan, or the title V permit issued by the reviewing authority that establishes a PAL for a major stationary source.
 - (x) **PAL pollutant** means the pollutant for which a PAL is established at a major stationary source.
 - (xi) **Significant emissions unit** means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in paragraph II.A.10 of this Ruling or in the Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in paragraph IV.K.2(iv) of this Ruling.
3. *Permit application requirements.* As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information to the reviewing authority for approval:
- (i) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations or work practices apply to each unit.
 - (ii) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown and malfunction.
 - (iii) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph IV.K.13(i) of this Ruling.
4. General requirements for establishing PALs.
- (i) The reviewing authority is allowed to establish a PAL at a major stationary source, provided that at a minimum, the requirements in paragraphs IV.K.4(i) (a) through (g) of this Ruling are met.
 - (a) The PAL shall impose an annual emission limitation in tons per year, that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.
 - (b) The PAL shall be established in a PAL permit that meets the public participation requirements in paragraph IV.K.5 of this Ruling.
 - (c) The PAL permit shall contain all the requirements of paragraph IV.K.7 of this Ruling.
 - (d) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.
 - (e) Each PAL shall regulate emissions of only one pollutant.
 - (f) Each PAL shall have a PAL effective period of 10 years.
 - (g) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs IV.K. 12 through 14 of this Ruling for each emissions unit under the PAL through the PAL effective period.
 - (ii) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant,

which occur during the PAL effective period, creditable as decreases for purposes of offsets under paragraph IV.C of this Ruling unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

5. *Public participation requirement for PALs.* PALs for existing major stationary sources shall be established, renewed, or increased through a procedure that is consistent with ((51.160 and 51.161 of this chapter. This includes the requirement that the reviewing authority provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The reviewing authority must address all material comments before taking final action on the permit.
6. *Setting the 10-year actuals PAL level.* The actuals PAL level for a major stationary source shall be established as the sum of the baseline actual emissions (as defined in paragraph II.A.30 of this Ruling) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph II.A.10 of this Ruling or under the Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL level. Emissions from units on which actual construction began after the 24-month period must be added to the PAL level in an amount equal to the potential to emit of the units. The reviewing authority shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the reviewing authority is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO_x to a new rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).
7. *Contents of the PAL permit.* The PAL permit contain, at a minimum, the information in paragraphs IV.K.7 (i) through (x) of this Ruling.
 - (i) The PAL pollutant and the applicable source-wide emission limitation in tons per year.
 - (ii) The PAL permit effective date and the expiration date of the PAL (PAL effective period).
 - (iii) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL in accordance with paragraph IV.K.10 of this Ruling before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the reviewing authority.
 - (iv) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns and malfunctions.
 - (v) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of paragraph IV.K.9 of this Ruling.
 - (vi) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph IV.K.13(i) of this Ruling.
 - (vii) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under paragraph IV.K.12 of this Ruling.
 - (viii) A requirement to retain the records required under paragraph IV.K.13 of this Ruling on site. Such records may be retained in an electronic format.
 - (ix) A requirement to submit the reports required under paragraph IV.K.14 of this Ruling by the required deadlines.
 - (x) Any other requirements that the reviewing authority deems necessary to implement and enforce the PAL.

8. *PAL effective period and reopening of the PAL permit.* The requirements in paragraphs IV.K.8(i) and (ii) of this Ruling apply to actuals PALs.
- (i) *PAL effective period.* The reviewing authority shall specify a PAL effective period of 10 years.
 - (ii) *Reopening of the PAL permit.*
 - (a) During the PAL effective period, the reviewing authority must reopen the PAL permit to:
 - (1) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL.
 - (2) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under paragraph IV.C of this Ruling.
 - (3) Revise the PAL to reflect an increase in the PAL as provided under paragraph IV.K.11 of this Ruling.
 - (b) The reviewing authority shall have discretion to reopen the PAL permit for the following:
 - (1) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) with compliance dates after the PAL effective date.
 - (2) Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and that the State may impose on the major stationary source under the plan.
 - (3) Reduce the PAL if the reviewing authority determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
 - (c) Except for the permit reopening in paragraph IV.K.8(ii)(a)(1) of this Ruling for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of paragraph IV.K.5 of this Ruling.
9. *Expiration of a PAL.* Any PAL which is not renewed in accordance with the procedures in paragraph IV.K.10 of this Ruling shall expire at the end of the PAL effective period, and the requirements in paragraphs IV.K.9(i) through (v) of this Ruling shall apply.
- (i) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in paragraphs IV.K.9(i)(a) through (b) of this Ruling.
 - (a) Within the time frame specified for PAL renewals in paragraph IV.K.10(ii) of this Ruling, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the reviewing authority) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under paragraph IV.K.10(v) of this Ruling, such distribution shall be made as if the PAL had been adjusted.
 - (b) The reviewing authority shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the reviewing authority determines is appropriate.
 - (ii) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The reviewing authority may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS or CPMS to demonstrate compliance with the allowable emission limitation.
 - (iii) Until the reviewing authority issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under paragraph IV.K.9(i)(a) of this Ruling, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.

- (iv) Any physical change or change in the method of operation at the major stationary source will be subject to the nonattainment major NSR requirements if such change meets the definition of major modification in paragraph II.A.5 of this Ruling.
- (v) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to paragraph IV.F of this Ruling, but were eliminated by the PAL in accordance with the provisions in paragraph IV.K.1(iii)(c) of this Ruling.

10. Renewal of a PAL.

- (i) The reviewing authority shall follow the procedures specified in paragraph IV.K.5 of this Ruling in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the reviewing authority.
- (ii) *Application deadline.* The major stationary source owner or operator shall submit a timely application to the reviewing authority to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.
- (iii) *Application requirements.* The application to renew a PAL permit shall contain the information required in paragraphs IV.K.10(iii)(a) through (d) of this Ruling.
 - (a) The information required in paragraphs IV.K.3(i) through (iii) of this Ruling.
 - (b) A proposed PAL level.
 - (c) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).
 - (d) Any other information the owner or operator wishes the reviewing authority to consider in determining the appropriate level for renewing the PAL.
- (iv) *PAL adjustment.* In determining whether and how to adjust the PAL, the reviewing authority shall consider the options outlined in paragraphs IV.K.10(iv)(a) and (b) of this Ruling. However, in no case may any such adjustment fail to comply with paragraph IV.K.10(iv)(c) of this Ruling.
 - (a) If the emissions level calculated in accordance with paragraph IV.K.6 of this Ruling is equal to or greater than 80 percent of the PAL level, the reviewing authority may renew the PAL at the same level without considering the factors set forth in paragraph IV.K.10(iv)(b) of this Ruling; or
 - (b) The reviewing authority may set the PAL at a level that it determines to be more representative of the source's baseline actual emissions, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the reviewing authority in its written rationale.
- (c) Notwithstanding paragraphs IV.K.10(iv)(a) and (b) of this Ruling,
 - (1) If the potential to emit of the major stationary source is less than the PAL, the reviewing authority shall adjust the PAL to a level no greater than the potential to emit of the source; and
 - (2) The reviewing authority shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of paragraph IV.K.11 of this Ruling (increasing a PAL).
- (v) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during

the PAL effective period, and if the reviewing authority has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.

11. Increasing a PAL during the PAL effective period.

- (i) The reviewing authority may increase a PAL emission limitation only if the major stationary source complies with the provisions in paragraphs IV.K.11(i)(a) through (d) of this Ruling.
 - (a) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.
 - (b) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.
 - (c) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in paragraph IV.K.11(i)(a) of this Ruling, regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the nonattainment major NSR program process (for example, LAER), even though they have also become subject to the PAL or continue to be subject to the PAL.
 - (d) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (ii) The reviewing authority shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with paragraph IV.K.11(i)(b)), plus the sum of the baseline actual emissions of the small emissions units.
- (iii) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of paragraph IV.K.5 of this Ruling.

12. Monitoring requirements for PALs.

- (i) General Requirements.
 - (a) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.
 - (b) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in paragraphs IV.K.12(ii)(a) through (d) of this Ruling and must be approved by the reviewing authority.
 - (c) Notwithstanding paragraph IV.K.12(i)(b) of this Ruling, you may also employ an alternative monitoring approach that meets paragraph IV.K.12(i)(a) of this Ruling if approved by the reviewing authority.

- (d) Failure to use a monitoring system that meets the requirements of this Ruling renders the PAL invalid.
- (ii) Minimum Performance Requirements for Approved Monitoring Approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in paragraphs IV.K.12(iii) through (ix) of this Ruling:
 - (a) Mass balance calculations for activities using coatings or solvents;
 - (b) CEMS;
 - (c) CPMS or PEMS; and
 - (d) Emission Factors.
- (iii) Mass Balance Calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:
 - (a) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;
 - (b) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
 - (c) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the reviewing authority determines there is site-specific data or a site-specific monitoring program to support another content within the range.
- (iv) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:
 - (a) CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and
 - (b) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.
- (v) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:
 - (a) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and
 - (b) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the reviewing authority, while the emissions unit is operating.
- (vi) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
 - (a) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
 - (b) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and
 - (c) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the reviewing authority determines that testing is not required.
- (vii) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.

- (viii) Notwithstanding the requirements in paragraphs IV.K.12(iii) through (vii) of this Ruling, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the reviewing authority shall, at the time of permit issuance:
- (a) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
 - (b) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.
- (ix) Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the reviewing authority. Such testing must occur at least once every 5 years after issuance of the PAL.

13. Recordkeeping requirements.

- (i) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of paragraph IV.K of this Ruling and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.
- (ii) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:
 - (a) A copy of the PAL permit application and any applications for revisions to the PAL; and
 - (b) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.

14. *Reporting and notification requirements.* The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the reviewing authority in accordance with the applicable title V operating permit program. The reports shall meet the requirements in paragraphs IV.K.14(i) through (iii).

- (i) Semi-Annual Report. The semi-annual report shall be submitted to the reviewing authority within 30 days of the end of each reporting period. This report shall contain the information required in paragraphs IV.K.14(i)(a) through (g) of this Ruling.
 - (a) The identification of owner and operator and the permit number.
 - (b) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph IV.K.13(i) of this Ruling.
 - (c) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
 - (d) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.
 - (e) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
 - (f) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by paragraph IV.K.12(vii) of this Ruling.
 - (g) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- (ii) Deviation report. The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting

requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of this chapter. The reports shall contain the following information:

- (a) The identification of owner and operator and the permit number;
 - (b) The PAL requirement that experienced the deviation or that was exceeded;
 - (c) Emissions resulting from the deviation or the exceedance; and
 - (d) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- (iii) Re-validation results. The owner or operator shall submit to the reviewing authority the results of any re-validation test or method within 3 months after completion of such test or method.

15. Transition requirements.

- (i) No reviewing authority may issue a PAL that does not comply with the requirements in paragraphs IV.K.1 through 15 of this Ruling after the date that this Ruling becomes effective for the State in which the major stationary source is located.
- (ii) The reviewing authority may supersede any PAL which was established prior to the date that this Ruling becomes effective for the State in which the major stationary source is located with a PAL that complies with the requirements of paragraphs IV.K.1 through 15 of this Ruling.

L. *Severability*. If any provision of this Ruling, or the application of such provision to any person or circumstance, is held invalid, the remainder of this Ruling, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

V. Administrative Procedures

The necessary emission offsets may be proposed either by the owner of the proposed source or by the local community or the State. The emission reduction committed to must be enforceable by authorized State and/or local agencies and under the Clean Air Act, and must be accomplished by the new source's start-up date. If emission reductions are to be obtained in a State that neighbors the State in which the new source is to be located, the emission reductions committed to must be enforceable by the neighboring State and/or local agencies and under the Clean Air Act. Where the new facility is a replacement for a facility that is being shut down in order to provide the necessary offsets, the reviewing authority may allow up to 180 days for shakedown of the new facility before the existing facility is required to cease operation.

A. *Source initiated emission offsets*. A source may propose emission offsets which involve:

- (1) Reductions from sources controlled by the source owner (internal emission offsets); and/or
- (2) reductions from neighboring sources (external emission offsets). The source does not have to investigate all possible emission offsets. As long as the emission offsets obtained represent reasonable progress toward attainment, they will be acceptable. It is the reviewing authority's responsibility to assure that the emission offsets will be as effective as proposed by the source. An internal emission offset will be considered enforceable if it is made a SIP requirement by inclusion as a condition of the new source permit and the permit is forwarded to the appropriate EPA Regional Office.⁷ An external emission offset will not be enforceable unless the affected source(s) providing the emission reductions

⁷ The emission offset will, therefore, be enforceable by EPA under section 113 as an applicable SIP requirement and will be enforceable by private parties under section 304 as an emission limitation.

is subject to a new SIP requirement to ensure that its emissions will be reduced by a specified amount in a specified time. Thus, if the source(s) providing the emission reductions does not obtain the necessary reduction, it will be in violation of a SIP requirement and subject to enforcement action by EPA, the State and/or private parties.

The form of the SIP revision may be a State or local regulation, operating permit condition, consent or enforcement order, or any other mechanism available to the State that is enforceable under the Clean Air Act. If a SIP revision is required, the public hearing on the revision may be substituted for the normal public comment procedure required for all major sources under 40 CFR 51.18. The formal publication of the SIP revision approval in the Federal Register need not appear before the source may proceed with construction. To minimize uncertainty that may be caused by these procedures, EPA will, if requested by the State, propose a SIP revision for public comment in the Federal Register concurrently with the State public hearing process. Of course, any major change in the final permit/SIP revision submitted by the State may require a reproposal by EPA.

B. *State or community initiated emission offsets.* A State or community which desires that a source locate in its area may commit to reducing emissions from existing sources (including mobile sources) to sufficiently outweigh the impact of the new source and thus open the way for the new source. As with source-initiated emission offsets, the commitment must be something more than one-for-one. This commitment must be submitted as a SIP revision by the State.

VI. Policy Where Attainment Dates have not Passed

In some cases, the dates for attainment of primary standards specified in the SIP under section 110 have not yet passed due to a delay in the promulgation of a plan under this section of the Act. In addition the Act provides more flexibility with respect to the dates for attainment of secondary NAAQS than for primary standards. Rather than setting specific deadlines, section 110 requires secondary NAAQS to be achieved within a “reasonable time”. Therefore, in some cases, the date for attainment of secondary standards specified in the SIP under section 110 may also not yet have passed. In such cases, a new source locating in an area designated in 40 CFR 81.300 *et seq.* as nonattainment (or, where section III of this Ruling is applicable, a new source that would cause or contribute to a NAAQS violation) may be exempt from the Conditions of section IV.A if the conditions in paragraphs VI.A through C are met.

- A. The new source meets the applicable SIP emission limitations.
- B. The new source will not interfere with the attainment date specified in the SIP under section 110 of the Act.
- C. The Administrator has determined that conditions A and B of this section are satisfied and such determination is published in the Federal Register.

VII. Anti-Backsliding Measures for Revoked Ozone NAAQS

Nonattainment area new source review obligations for prior ozone NAAQS.

A. Except as provided in paragraph VII.B of this Ruling, an area designated nonattainment for the 2008 ozone NAAQS and designated nonattainment for the 1997 ozone NAAQS on April 6, 2015 remains subject to the obligation to adopt and implement the major source threshold and offset ratio requirements for nonattainment NSR that apply or applied to the area pursuant to sections 172(c)(5), 173 and 182 of the Act based on the highest of: (i) The area's classification under section 181(a)(1) of the Act for the 1-hour ozone NAAQS as of the effective date of revocation of that NAAQS; (ii) the area's classification under §51.903 for the 1997 ozone NAAQS as of the date a permit is issued or as of April 6, 2015, whichever is earlier; and (iii) the area's classification under §51.1103 for the 2008 ozone NAAQS.

- B. 1. An area remains subject to the obligations for a revoked NAAQS under paragraph (a) until either (i) the area is redesignated to attainment for the 2008 ozone NAAQS; or (ii) the EPA approves a demonstration for the area in a redesignation substitute procedure for a revoked NAAQS per the provisions of §51.1105(b). Under this redesignation substitute procedure for a revoked NAAQS, and for this limited anti-backsliding purpose, the demonstration must show that the area has attained that revoked NAAQS due to permanent and enforceable emission reductions and that the area will maintain that revoked NAAQS for 10 years from the date of EPA's approval of this showing.
2. Effect of redesignation to attainment for 2008 ozone NAAQS or approval of a redesignation substitute for a revoked ozone NAAQS. After redesignation to attainment for the 2008 ozone NAAQS, the state may request that provisions for nonattainment NSR be removed from the SIP. After EPA approval of a redesignation substitute for a revoked NAAQS under the provisions of §51.1105(b), the state may request that provisions for nonattainment NSR for that revoked NAAQS be removed from the SIP. Upon removal of nonattainment NSR provisions for a revoked NAAQS, the state remains subject to the obligation to adopt and implement the major source threshold and offset ratio requirements for nonattainment NSR that apply or applied to the area for the remaining applicable NAAQS consistent with paragraph VII.A of this Ruling.

Editorial Note: For Federal Register citations affecting appendix S to part 51, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

Effective Date Note: At 76 FR 17554, Mar. 30, 2011, part 51, appendix S, paragraph II.A.5 (vii) is stayed indefinitely.

Appendix IV

40 CFR Part 52.21

Disclaimer

This is not an official legal edition of the CFR. What follows has been extracted from the Electronic Code of Federal Regulations (e-CFR) on February 5, 2018 and formatted to facilitate reference. The e-CFR is an editorial compilation of CFR material and Federal Register amendments produced by the National Archives and Records Administration's Office of the Federal Register (OFR) and the Government Publishing Office. The OFR updates the material in the e-CFR on a daily basis.

Current eCFR Version of §52.21

§52.21 Prevention of significant deterioration of air quality.

(a) (1) *Plan disapproval.* The provisions of this section are applicable to any State implementation plan which has been disapproved with respect to prevention of significant deterioration of air quality in any portion of any State where the existing air quality is better than the national ambient air quality standards. Specific disapprovals are listed where applicable, in subparts B through DDD and FFF of this part. The provisions of this section have been incorporated by reference into the applicable implementation plans for various States, as provided in subparts B through DDD and FFF of this part. Where this section is so incorporated, the provisions shall also be applicable to all lands owned by the Federal Government and Indian Reservations located in such State. No disapproval with respect to a State's failure to prevent significant deterioration of air quality shall invalidate or otherwise affect the obligations of States, emission sources, or other persons with respect to all portions of plans approved or promulgated under this part.

(2) Applicability procedures.

- (i) The requirements of this section apply to the construction of any new major stationary source (as defined in paragraph (b)(1) of this section) or any project at an existing major stationary source in an area designated as attainment or unclassifiable under sections 107(d)(1)(A)(ii) or (iii) of the Act.
- (ii) The requirements of paragraphs (j) through (r) of this section apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as this section otherwise provides.
- (iii) No new major stationary source or major modification to which the requirements of paragraphs (j) through (r)(5) of this section apply shall begin actual construction without a permit that states that the major stationary source or major modification will meet those requirements. The Administrator has authority to issue any such permit.
- (iv) The requirements of the program will be applied in accordance with the principles set out in paragraphs (a)(2)(iv)(a) through (f) of this section.
 - (a) Except as otherwise provided in paragraphs (a)(2)(v) and (vi) of this section, and consistent with the definition of major modification contained in paragraph (b)(2) of this section, a project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases—a significant emissions increase (as defined in paragraph (b)(40) of this section), and a significant net emissions increase (as defined in paragraphs (b)(3) and (b)(23) of this section). The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.
 - (b) The procedure for calculating (before beginning actual construction) whether a significant emissions increase (i.e., the first step of the process) will occur depends upon the type of emissions units being modified, according to paragraphs (a)(2)(iv)(c) through (f) of this section. The procedure for calculating (before beginning actual construction) whether a significant net emissions increase will occur at the major stationary source (i.e., the second step of the process) is contained in the definition in paragraph (b)(3) of this section. Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.
 - (c) *Actual-to-projected-actual applicability test for projects that only involve existing emissions units.* A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in paragraph (b)(41) of this section) and the baseline actual emissions (as defined in paragraphs (b)(48)(i) and (ii) of this section), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).
 - (d) *Actual-to-potential test for projects that only involve construction of a new emissions unit(s).* A significant

emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in paragraph (b)(4) of this section) from each new emissions unit following completion of the project and the baseline actual emissions (as defined in paragraph (b)(48)(iii) of this section) of these units before the project equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).

(e) [Reserved]

(f) *Hybrid test for projects that involve multiple types of emissions units.* A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in paragraphs (a)(2)(iv)(c) through (d) of this section as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).

- (v) For any major stationary source for a PAL for a regulated NSR pollutant, the major stationary source shall comply with the requirements under paragraph (aa) of this section.

(b) *Definitions.* For the purposes of this section:

(1) (i) Major stationary source means:

(a) Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant: Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants (with thermal dryers), primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140), fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants;

(b) Notwithstanding the stationary source size specified in paragraph (b)(1)(i) of this section, any stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or

(c) Any physical change that would occur at a stationary source not otherwise qualifying under paragraph (b)(1) of this section, as a major stationary source, if the changes would constitute a major stationary source by itself.

- (ii) A major source that is major for volatile organic compounds or NO_x shall be considered major for ozone.

- (iii) The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this section whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources:

(a) Coal cleaning plants (with thermal dryers);

(b) Kraft pulp mills;

(c) Portland cement plants;

(d) Primary zinc smelters;

(e) Iron and steel mills;

(f) Primary aluminum ore reduction plants;

(g) Primary copper smelters;

(h) Municipal incinerators capable of charging more than 250 tons of refuse per day;

- (i) Hydrofluoric, sulfuric, or nitric acid plants;
 - (j) Petroleum refineries;
 - (k) Lime plants;
 - (l) Phosphate rock processing plants;
 - (m) Coke oven batteries;
 - (n) Sulfur recovery plants;
 - (o) Carbon black plants (furnace process);
 - (p) Primary lead smelters;
 - (q) Fuel conversion plants;
 - (r) Sintering plants;
 - (s) Secondary metal production plants;
 - (t) Chemical process plants—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
 - (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
 - (v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
 - (w) Taconite ore processing plants;
 - (x) Glass fiber processing plants;
 - (y) Charcoal production plants;
 - (z) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, and
 - (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act.
- (2) (i) **Major modification** means any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase (as defined in paragraph (b)(40) of this section) of a regulated NSR pollutant (as defined in paragraph (b)(50) of this section); and a significant net emissions increase of that pollutant from the major stationary source.
- (ii) Any significant emissions increase (as defined at paragraph (b)(40) of this section) from any emissions units or net emissions increase (as defined in paragraph (b)(3) of this section) at a major stationary source that is significant for volatile organic compounds or NO_x shall be considered significant for ozone.
- (iii) A physical change or change in the method of operation shall not include:
- (a) Routine maintenance, repair and replacement. Routine maintenance, repair and replacement shall include, but not be limited to, any activity(s) that meets the requirements of the equipment replacement provisions contained in paragraph (cc) of this section;
- NOTE TO PARAGRAPH (b)(2)(iii)(a): By court order on December 24, 2003, the second sentence of this paragraph (b)(2)(iii)(a) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.*
- (b) Use of an alternative fuel or raw material by reason of an order under sections 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plant pursuant to the Federal Power Act;
 - (c) Use of an alternative fuel by reason of an order or rule under section 125 of the Act;
 - (d) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

- (e) Use of an alternative fuel or raw material by a stationary source which:
 - (1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or 40 CFR 51.166; or
 - (2) The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;
- (f) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or 40 CFR 51.166.
- (g) Any change in ownership at a stationary source.
- (h) [Reserved]
- (i) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:
 - (1) The State implementation plan for the State in which the project is located, and
 - (2) Other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (j) The installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, provided that the project does not result in an increase in the potential to emit of any regulated pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis.
- (k) The reactivation of a very clean coal-fired electric utility steam generating unit.
- (iv) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under paragraph (aa) of this section for a PAL for that pollutant. Instead, the definition at paragraph (aa)(2)(viii) of this section shall apply.
- (v) Fugitive emissions shall not be included in determining for any of the purposes of this section whether a physical change in or change in the method of operation of a major stationary source is a major modification, unless the source belongs to one of the source categories listed in paragraph (b)(1)(iii) of this section.

EFFECTIVE DATE NOTE: At 76 FR 17556, Mar. 30, 2011, §52.21(b)(2)(v) and (b)(3)(iii)(c) were stayed indefinitely.

- (3) (i) **Net emissions increase** means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:
 - (a) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph (a)(2)(iv) of this section; and
 - (b) Any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases under this paragraph (b)(3)(i)(b) shall be determined as provided in paragraph (b)(48) of this section, except that paragraphs (b)(48)(i)(c) and (b)(48)(ii)(d) of this section shall not apply.
- (ii) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between:
 - (a) The date five years before construction on the particular change commences; and
 - (b) The date that the increase from the particular change occurs.
- (iii) An increase or decrease in actual emissions is creditable only if:

- (a) The Administrator or other reviewing authority has not relied on it in issuing a permit for the source under this section, which permit is in effect when the increase in actual emissions from the particular change occurs; and
- (b) The increase or decrease in emissions did not occur at a Clean Unit except as provided in paragraphs (x)(8) and (y)(10) of this section.
- (c) As it pertains to an increase or decrease in fugitive emissions (to the extent quantifiable), it occurs at an emissions unit that is part of one of the source categories listed in paragraph (b)(1)(iii) of this section or it occurs at an emission unit that is located at a major stationary source that belongs to one of the listed source categories.
- (iv) An increase or decrease in actual emissions of sulfur dioxide, particulate matter, or nitrogen oxides that occurs before the applicable minor source baseline date is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available.

EFFECTIVE DATE NOTE: At 76 FR 17556, Mar. 30, 2011, §52.21(b)(2)(v) and (b)(3)(iii)(c) were stayed indefinitely.

- (v) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
- (vi) A decrease in actual emissions is creditable only to the extent that:
 - (a) The old level of actual emissions or the old level of allowable emissions, whichever is lower, exceeds the new level of actual emissions;
 - (b) It is enforceable as a practical matter at and after the time that actual construction on the particular change begins.
 - (c) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change; and
- (vii) [Reserved]
- (viii) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
- (ix) Paragraph (b)(21)(ii) of this section shall not apply for determining creditable increases and decreases.
- (4) **Potential to emit** means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.
- (5) **Stationary source** means any building, structure, facility, or installation which emits or may emit a regulated NSR pollutant.
- (6) (i) **Building, structure, facility, or installation** means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same “Major Group” (i.e., which have the same first two digit code) as described in the *Standard Industrial Classification Manual, 1972*, as amended by the 1977 Supplement (U. S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively).
- (ii) Notwithstanding the provisions of paragraph (b)(6)(i) of this section, building, structure, facility, or installation means, for onshore activities under Standard Industrial Classification (SIC) Major Group

13: Oil and Gas Extraction, all of the pollutant-emitting activities included in Major Group 13 that are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant emitting activities shall be considered adjacent if they are located on the same surface site; or if they are located on surface sites that are located within 1/4 mile of one another (measured from the center of the equipment on the surface site) and they share equipment. Shared equipment includes, but is not limited to, produced fluids storage tanks, phase separators, natural gas dehydrators or emissions control devices. Surface site, as used in this paragraph (b)(6)(ii), has the same meaning as in 40 CFR 63.761.

- (7) **Emissions unit** means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric utility steam generating unit as defined in paragraph (b)(31) of this section. For purposes of this section, there are two types of emissions units as described in paragraphs (b)(7)(i) and (ii) of this section.
- (i) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.
- (ii) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph (b)(7)(i) of this section. A replacement unit, as defined in paragraph (b)(33) of this section, is an existing emissions unit.
- (8) **Construction** means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of an emissions unit) that would result in a change in emissions.
- (9) **Commence** as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:
- (i) Begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- (ii) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time.
- (10) **Necessary preconstruction approvals or permits** means those permits or approvals required under Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the applicable State Implementation Plan.
- (11) **Begin actual construction** means, in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying underground pipework and construction of permanent storage structures. With respect to a change in method of operations, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.
- (12) **Best available control technology** means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall

provide for compliance by means which achieve equivalent results.

- (13) (i) **Baseline concentration** means that ambient concentration level that exists in the baseline area at the time of the applicable minor source baseline date. A baseline concentration is determined for each pollutant for which a minor source baseline date is established and shall include:
- (a) The actual emissions, as defined in paragraph (b)(21) of this section, representative of sources in existence on the applicable minor source baseline date, except as provided in paragraph (b)(13)(ii) of this section; and
 - (b) The allowable emissions of major stationary sources that commenced construction before the major source baseline date, but were not in operation by the applicable minor source baseline date.
- (ii) The following will not be included in the baseline concentration and will affect the applicable maximum allowable increase(s):
- (a) Actual emissions, as defined in paragraph (b)(21) of this section, from any major stationary source on which construction commenced after the major source baseline date; and
 - (b) Actual emissions increases and decreases, as defined in paragraph (b)(21) of this section, at any stationary source occurring after the minor source baseline date.
- (14) (i) Major source baseline date means:
- (a) In the case of PM₁₀ and sulfur dioxide, January 6, 1975;
 - (b) In the case of nitrogen dioxide, February 8, 1988; and
 - (c) In the case of PM_{2.5}, October 20, 2010.
- (ii) “Minor source baseline date” means the earliest date after the trigger date on which a major stationary source or a major modification subject to 40 CFR 52.21 or to regulations approved pursuant to 40 CFR 51.166 submits a complete application under the relevant regulations. The trigger date is:
- (a) In the case of PM₁₀ and sulfur dioxide, August 7, 1977;
 - (b) In the case of nitrogen dioxide, February 8, 1988; and
 - (c) In the case of PM_{2.5}, October 20, 2011.
- (iii) The baseline date is established for each pollutant for which increments or other equivalent measures have been established if:
- (a) The area in which the proposed source or modification would construct is designated as attainment or unclassifiable under section 107(d)(1)(A)(ii) or (iii) of the Act for the pollutant on the date of its complete application under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; and
 - (b) In the case of a major stationary source, the pollutant would be emitted in significant amounts, or, in the case of a major modification, there would be a significant net emissions increase of the pollutant.
- (iv) Any minor source baseline date established originally for the TSP increments shall remain in effect and shall apply for purposes of determining the amount of available PM-10 increments, except that the Administrator shall rescind a minor source baseline date where it can be shown, to the satisfaction of the Administrator, that the emissions increase from the major stationary source, or net emissions increase from the major modification, responsible for triggering that date did not result in a significant amount of PM-10 emissions.
- (15) (i) **Baseline area** means any intrastate area (and every part thereof) designated as attainment or unclassifiable under section 107(d)(1)(A)(ii) or (iii) of the Act in which the major source or major modification establishing the minor source baseline date would construct or would have an air quality impact for the pollutant for which the baseline date is established, as follows: equal to or greater than 1 µg/m³ (annual average) for SO₂, NO₂, or PM₁₀; or equal to or greater than 0.3 µg/m³ (annual average) for PM_{2.5}.
- (ii) Area redesignations under section 107(d)(1)(A)(ii) or (iii) of the Act cannot intersect or be smaller than the area of impact of any major stationary source or major modification which:

- (a) Establishes a minor source baseline date; or
 - (b) Is subject to 40 CFR 52.21 and would be constructed in the same state as the state proposing the redesignation.
 - (iii) Any baseline area established originally for the TSP increments shall remain in effect and shall apply for purposes of determining the amount of available PM-10 increments, except that such baseline area shall not remain in effect if the Administrator rescinds the corresponding minor source baseline date in accordance with paragraph (b)(14)(iv) of this section.
- (16) **Allowable emissions** means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
 - (i) The applicable standards as set forth in 40 CFR parts 60 and 61;
 - (ii) The applicable State Implementation Plan emissions limitation, including those with a future compliance date; or
 - (iii) The emissions rate specified as a federally enforceable permit condition, including those with a future compliance date.
- (17) **Federally enforceable** means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR part 51, subpart I, including operating permits issued under an EPA-approved program that is incorporated into the State implementation plan and expressly requires adherence to any permit issued under such program.
- (18) **Secondary emissions** means emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but do not come from the major stationary source or major modification itself. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the major stationary source or major modification. Secondary emissions do not include any emissions which come directly from a mobile source, such as emissions from the tailpipe of a motor vehicle, from a train, or from a vessel.
 - (i) Emissions from ships or trains coming to or from the new or modified stationary source; and
 - (ii) Emissions from any offsite support facility which would not otherwise be constructed or increase its emissions as a result of the construction or operation of the major stationary source or major modification.
- (19) **Innovative control technology** means any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or nonair quality environmental impacts.
- (20) **Fugitive emissions** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- (21) (i) **Actual emissions** means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs (b)(21)(ii) through (iv) of this section, except that this definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL under paragraph (aa) of this section. Instead, paragraphs (b)(41) and (b)(48) of this section shall apply for those purposes.
 - (ii) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates,

and types of materials processed, stored, or combusted during the selected time period.

- (iii) The Administrator may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
- (iv) For any emissions unit that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- (22) *Complete* means, in reference to an application for a permit, that the application contains all of the information necessary for processing the application.
- (23) (i) **Significant** means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant and Emissions Rate

Carbon monoxide: 100 tons per year (tpy)

Nitrogen oxides: 40 tpy

Sulfur dioxide: 40 tpy

Particulate matter: 25 tpy of particulate matter emissions

PM₁₀: 15 tpy

PM_{2.5}: 10 tpy of direct PM_{2.5} emissions; 40 tpy of sulfur dioxide emissions; 40 tpy of nitrogen oxide emissions unless demonstrated not to be a PM_{2.5} precursor under paragraph (b)(50) of this section

Ozone: 40 tpy of volatile organic compounds or nitrogen oxides

Lead: 0.6 tpy

Fluorides: 3 tpy

Sulfuric acid mist: 7 tpy

Hydrogen sulfide (H₂S): 10 tpy

Total reduced sulfur (including H₂S): 10 tpy

Reduced sulfur compounds (including H₂S): 10 tpy

Municipal waste combustor organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans): 3.2×10⁻⁶ megagrams per year (3.5×10⁻⁶ tons per year)

Municipal waste combustor metals (measured as particulate matter): 14 megagrams per year (15 tons per year)

Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride): 36 megagrams per year (40 tons per year)

Municipal solid waste landfills emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year)

- (ii) *Significant* means, in reference to a net emissions increase or the potential of a source to emit a regulated NSR pollutant that paragraph (b)(23)(i) of this section, does not list, any emissions rate.
- (iii) Notwithstanding paragraph (b)(23)(i) of this section, *significant* means any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact on such area equal to or greater than 1 µg/m³, (24-hour average).
- (24) **Federal Land Manager** means, with respect to any lands in the United States, the Secretary of the department with authority over such lands.
- (25) **High terrain** means any area having an elevation 900 feet or more above the base of the stack of a source.
- (26) **Low terrain** means any area other than high terrain.
- (27) **Indian Reservation** means any federally recognized reservation established by Treaty, Agreement,

executive order, or act of Congress.

- (28) **Indian Governing Body** means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self government.
- (29) **Adverse impact on visibility** means visibility impairment which interferes with the management, protection, preservation or enjoyment of the visitor's visual experience of the Federal Class I area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of visibility impairment, and how these factors correlate with (1) times of visitor use of the Federal Class I area, and (2) the frequency and timing of natural conditions that reduce visibility.
- (30) **Volatile organic compounds (VOC)** is as defined in §51.100(s) of this chapter.
- (31) **Electric utility steam generating unit** means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.
- (32) [Reserved]
- (33) **Replacement unit** means an emissions unit for which all the criteria listed in paragraphs (b)(33)(i) through (iv) of this section are met. No creditable emission reductions shall be generated from shutting down the existing emissions unit that is replaced.
- (i) The emissions unit is a reconstructed unit within the meaning of §60.15(b)(1) of this chapter, or the emissions unit completely takes the place of an existing emissions unit.
 - (ii) The emissions unit is identical to or functionally equivalent to the replaced emissions unit.
 - (iii) The replacement does not alter the basic design parameters (as discussed in paragraph (cc)(2) of this section) of the process unit.
 - (iv) The replaced emissions unit is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable as a practical matter. If the replaced emissions unit is brought back into operation, it shall constitute a new emissions unit.
- (34) **Clean coal technology** means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.
- (35) **Clean coal technology demonstration project** means a project using funds appropriated under the heading "Department of Energy-Clean Coal Technology", up to a total amount of \$2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.
- (36) **Temporary clean coal technology demonstration project** means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (37) (i) **Repowering** means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more

of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.

- (ii) Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.
 - (iii) The Administrator shall give expedited consideration to permit applications for any source that satisfies the requirements of this subsection and is granted an extension under section 409 of the Clean Air Act.
- (38) **Reactivation of a very clean coal-fired electric utility steam generating unit** means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:
- (i) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
 - (ii) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
 - (iii) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and
 - (iv) Is otherwise in compliance with the requirements of the Clean Air Act.
- (39) **Pollution prevention** means any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants (including fugitive emissions) and other pollutants to the environment prior to recycling, treatment, or disposal; it does not mean recycling (other than certain "in-process recycling" practices), energy recovery, treatment, or disposal.
- (40) **Significant emissions increase** means, for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph (b)(23) of this section) for that pollutant.
- (41) (i) **Projected actual emissions** means the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.
- (ii) In determining the projected actual emissions under paragraph (b)(41)(i) of this section (before beginning actual construction), the owner or operator of the major stationary source:
 - (a) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved State Implementation Plan; and
 - (b) Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions; and
 - (c) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions under paragraph (b)(48) of this section and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or
 - (d) In lieu of using the method set out in paragraphs (a)(41)(ii)(a) through (c) of this section, may elect

to use the emissions unit's potential to emit, in tons per year, as defined under paragraph (b)(4) of this section.

- (42) [Reserved]
- (43) ***Prevention of Significant Deterioration (PSD) program*** means the EPA-implemented major source preconstruction permit programs under this section or a major source preconstruction permit program that has been approved by the Administrator and incorporated into the State Implementation Plan pursuant to §51.166 of this chapter to implement the requirements of that section. Any permit issued under such a program is a major NSR permit.
- (44) ***Continuous emissions monitoring system (CEMS)*** means all of the equipment that may be required to meet the data acquisition and availability requirements of this section, to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis.
- (45) ***Predictive emissions monitoring system (PEMS)*** means all of the equipment necessary to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O₂ or CO₂ concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.
- (46) ***Continuous parameter monitoring system (CPMS)*** means all of the equipment necessary to meet the data acquisition and availability requirements of this section, to monitor process and control device operational parameters (for example, control device secondary voltages and electric currents) and other information (for example, gas flow rate, O₂ or CO₂ concentrations), and to record average operational parameter value(s) on a continuous basis.
- (47) ***Continuous emissions rate monitoring system (CERMS)*** means the total equipment required for the determination and recording of the pollutant mass emissions rate (in terms of mass per unit of time).
- (48) ***Baseline actual emissions*** means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs (b)(48)(i) through (iv) of this section.
- (i) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation.
- (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
- (b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.
- (c) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used For each regulated NSR pollutant.
- (d) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph (b)(48)(i)(b) of this section.
- (ii) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Administrator for a permit required under this section or by the reviewing authority for a permit required by a plan, whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990.

- (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.
 - (b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.
 - (c) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under part 63 of this chapter, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of §51.165(a)(3)(ii)(G) of this chapter.
 - (d) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for all the emissions units being changed. A different consecutive 24-month period can be used For each regulated NSR pollutant.
 - (e) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraphs (b)(48)(ii)(b) and (c) of this section.
- (iii) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.
- (iv) For a PAL for a stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in paragraph (b)(48)(i) of this section, for other existing emissions units in accordance with the procedures contained in paragraph (b)(48)(ii) of this section, and for a new emissions unit in accordance with the procedures contained in paragraph (b)(48)(iii) of this section.
- (49) ***Subject to regulation*** means, for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act, or a nationally-applicable regulation codified by the Administrator in subchapter C of this chapter, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity. Except that:
- (i) *Greenhouse gases (GHGs)*, the air pollutant defined in §86.1818-12(a) of this chapter as the aggregate group of six greenhouse gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation except as provided in paragraphs (b)(49)(iv) through (v) of this section and shall not be subject to regulation if the stationary source maintains its total source-wide emissions below the GHG PAL level, meets the requirements in paragraphs (aa)(1) through (15) of this section, and complies with the PAL permit containing the GHG PAL.
 - (ii) For purposes of paragraphs (b)(49)(iii) through (v) of this section, the term *tpy CO₂ equivalent emissions (CO₂e)* shall represent an amount of GHGs emitted, and shall be computed as follows:
 - (a) Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas's associated global warming potential published at Table A-1 to subpart A of part 98 of this chapter—Global Warming Potentials. For purposes of this paragraph, prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the

decomposition of non-fossilized and biodegradable organic material).

(b) Sum the resultant value from paragraph (b)(49)(ii)(a) of this section for each gas to compute a tpy CO₂e.

- (iii) The term *emissions increase* as used in paragraphs (b)(49)(iv) through (v) of this section shall mean that both a significant emissions increase (as calculated using the procedures in paragraph (a)(2)(iv) of this section) and a significant net emissions increase (as defined in paragraphs (b)(3) and (b)(23) of this section) occur. For the pollutant GHGs, an emissions increase shall be based on tpy CO₂e, and shall be calculated assuming the pollutant GHGs is a regulated NSR pollutant, and “significant” is defined as 75,000 tpy CO₂e instead of applying the value in paragraph (b)(23)(ii) of this section.
- (iv) Beginning January 2, 2011, the pollutant GHGs is subject to regulation if:
 - (a) The stationary source is a new major stationary source for a regulated NSR pollutant that is not GHGs, and also will emit or will have the potential to emit 75,000 tpy CO₂e or more; or
 - (b) The stationary source is an existing major stationary source for a regulated NSR pollutant that is not GHGs, and also will have an emissions increase of a regulated NSR pollutant, and an emissions increase of 75,000 tpy CO₂e or more; and,

(50) ***Regulated NSR pollutant***, for purposes of this section, means the following:

- (i) Any pollutant for which a national ambient air quality standard has been promulgated. This includes, but is not limited to, the following:
 - (a) PM_{2.5} emissions and PM₁₀ emissions shall include gaseous emissions from a source or activity, which condense to form particulate matter at ambient temperatures. On or after January 1, 2011, such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM_{2.5} and PM₁₀ in PSD permits. Compliance with emissions limitations for PM_{2.5} and PM₁₀ issued prior to this date shall not be based on condensable particulate matter unless required by the terms and conditions of the permit or the applicable implementation plan. Applicability determinations made prior to this date without accounting for condensable particulate matter shall not be considered in violation of this section unless the applicable implementation plan required condensable particulate matter to be included.
 - (b) Any pollutant identified under this paragraph (b)(50)(i)(b) as a constituent or precursor for a pollutant for which a national ambient air quality standard has been promulgated. Precursors identified by the Administrator for purposes of NSR are the following:
 - (1) Volatile organic compounds and nitrogen oxides are precursors to ozone in all attainment and unclassifiable areas.
 - (2) Sulfur dioxide is a precursor to PM_{2.5} in all attainment and unclassifiable areas.
 - (3) Nitrogen oxides are presumed to be precursors to PM_{2.5} in all attainment and unclassifiable areas, unless the State demonstrates to the Administrator's satisfaction or EPA demonstrates that emissions of nitrogen oxides from sources in a specific area are not a significant contributor to that area's ambient PM_{2.5} concentrations.
 - (4) Volatile organic compounds are presumed not to be precursors to PM_{2.5} in any attainment or unclassifiable area, unless the State demonstrates to the Administrator's satisfaction or EPA demonstrates that emissions of volatile organic compounds from sources in a specific area are a significant contributor to that area's ambient PM_{2.5} concentrations.
- (ii) Any pollutant that is subject to any standard promulgated under section 111 of the Act;
- (iii) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Act;
- (iv) Any pollutant that otherwise is subject to regulation under the Act as defined in paragraph (b)(49) of this section.
- (v) Notwithstanding paragraphs (b)(50)(i) through (iv) of this section, the term *regulated NSR pollutant* shall

not include any or all hazardous air pollutants either listed in section 112 of the Act, or added to the list pursuant to section 112(b)(2) of the Act, and which have not been delisted pursuant to section 112(b)(3) of the Act, unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under section 108 of the Act.

- (51) **Reviewing authority** means the State air pollution control agency, local agency, other State agency, Indian tribe, or other agency authorized by the Administrator to carry out a permit program under §51.165 and §51.166 of this chapter, or the Administrator in the case of EPA-implemented permit programs under this section.
- (52) **Project** means a physical change in, or change in the method of operation of, an existing major stationary source.
- (53) **Lowest achievable emission rate (LAER)** is as defined in §51.165(a)(1)(xiii) of this chapter.
- (54) **Reasonably available control technology (RACT)** is as defined in §51.100(o) of this chapter.
- (55) (i) In general, *process unit* means any collection of structures and/or equipment that processes, assembles, applies, blends, or otherwise uses material inputs to produce or store an intermediate or a completed product. A single stationary source may contain more than one process unit, and a process unit may contain more than one emissions unit.
- (ii) Pollution control equipment is not part of the process unit, unless it serves a dual function as both process and control equipment. Administrative and warehousing facilities are not part of the process unit.
- (iii) For replacement cost purposes, components shared between two or more process units are proportionately allocated based on capacity.
- (iv) The following list identifies the process units at specific categories of stationary sources.
- (a) For a steam electric generating facility, the process unit consists of those portions of the plant that contribute directly to the production of electricity. For example, at a pulverized coal-fired facility, the process unit would generally be the combination of those systems from the coal receiving equipment through the emission stack (excluding post-combustion pollution controls), including the coal handling equipment, pulverizers or coal crushers, feedwater heaters, ash handling, boiler, burners, turbine-generator set, condenser, cooling tower, water treatment system, air preheaters, and operating control systems. Each separate generating unit is a separate process unit.
- (b) For a petroleum refinery, there are several categories of process units: those that separate and/or distill petroleum feedstocks; those that change molecular structures; petroleum treating processes; auxiliary facilities, such as steam generators and hydrogen production units; and those that load, unload, blend or store intermediate or completed products.
- (c) For an incinerator, the process unit would consist of components from the feed pit or refuse pit to the stack, including conveyors, combustion devices, heat exchangers and steam generators, quench tanks, and fans.

NOTE TO PARAGRAPH (b)(55): By a court order on December 24, 2003, this paragraph (b)(55) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

- (56) **Functionally equivalent component** means a component that serves the same purpose as the replaced component.

NOTE TO PARAGRAPH (b)(56): By a court order on December 24, 2003, this paragraph (b)(56) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

- (57) **Fixed capital cost** means the capital needed to provide all the depreciable components. “Depreciable

components” refers to all components of fixed capital cost and is calculated by subtracting land and working capital from the total capital investment, as defined in paragraph (b)(58) of this section.

NOTE TO PARAGRAPH (b)(57): By a court order on December 24, 2003, this paragraph (b)(57) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

- (58) **Total capital investment** means the sum of the following: all costs required to purchase needed process equipment (purchased equipment costs); the costs of labor and materials for installing that equipment (direct installation costs); the costs of site preparation and buildings; other costs such as engineering, construction and field expenses, fees to contractors, startup and performance tests, and contingencies (indirect installation costs); land for the process equipment; and working capital for the process equipment.

NOTE TO PARAGRAPH (b)(58): By a court order on December 24, 2003, this paragraph (b)(58) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

- (c) *Ambient air increments.* In areas designated as Class I, II or III, increases in pollutant concentration over the baseline concentration shall be limited to the following:

| Pollutant | Maximum allowable increase (micrograms per cubic meter) |
|------------------------|---|
| Class I Area | |
| PM _{2.5} : | |
| Annual arithmetic mean | 1 |
| 24-hr maximum | 2 |
| PM ₁₀ : | |
| Annual arithmetic mean | 4 |
| 24-hr maximum | 8 |
| Sulfur dioxide: | |
| Annual arithmetic mean | 2 |
| 24-hr maximum | 5 |
| 3-hr maximum | 25 |
| Nitrogen dioxide: | |
| Annual arithmetic mean | 2.5 |
| Class II Area | |
| PM _{2.5} : | |
| Annual arithmetic mean | 4 |
| 24-hr maximum | 9 |
| PM ₁₀ : | |
| Annual arithmetic mean | 17 |
| 24-hr maximum | 30 |
| Sulfur dioxide: | |
| Annual arithmetic mean | 20 |

| | |
|------------------------|-----|
| 24-hr maximum | 91 |
| 3-hr maximum | 512 |
| Nitrogen dioxide: | |
| Annual arithmetic mean | 25 |
| Class III Area | |
| PM _{2.5} : | |
| Annual arithmetic mean | 8 |
| 24-hr maximum | 18 |
| PM ₁₀ : | |
| Annual arithmetic mean | 34 |
| 24-hr maximum | 60 |
| Sulfur dioxide: | |
| Annual arithmetic mean | 40 |
| 24-hr maximum | 182 |
| 3-hr maximum | 700 |
| Nitrogen dioxide: | |
| Annual arithmetic mean | 50 |

For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

- (d) *Ambient air ceilings.* No concentration of a pollutant shall exceed:
- (1) The concentration permitted under the national secondary ambient air quality standard, or
 - (2) The concentration permitted under the national primary ambient air quality standard, whichever concentration is lowest for the pollutant for a period of exposure.
- (e) Restrictions on area classifications.
- (1) All of the following areas which were in existence on August 7, 1977, shall be Class I areas and may not be redesignated:
 - (i) International parks,
 - (ii) National wilderness areas which exceed 5,000 acres in size,
 - (iii) National memorial parks which exceed 5,000 acres in size, and
 - (iv) National parks which exceed 6,000 acres in size.
 - (2) Areas which were redesignated as Class I under regulations promulgated before August 7, 1977, shall remain Class I, but may be redesignated as provided in this section.
 - (3) Any other area, unless otherwise specified in the legislation creating such an area, is initially designated Class II, but may be redesignated as provided in this section.
 - (4) The following areas may be redesignated only as Class I or II:
 - (i) An area which as of August 7, 1977, exceeded 10,000 acres in size and was a national monument, a national primitive area, a national preserve, a national recreational area, a national wild and scenic river, a national wildlife refuge, a national lakeshore or seashore; and
 - (ii) A national park or national wilderness area established after August 7, 1977, which exceeds 10,000

acres in size.

(f) [Reserved]

(g) Redesignation.

- (1) All areas (except as otherwise provided under paragraph (e) of this section) are designated Class II as of December 5, 1974. Redesignation (except as otherwise precluded by paragraph (e) of this section) may be proposed by the respective States or Indian Governing Bodies, as provided below, subject to approval by the Administrator as a revision to the applicable State implementation plan.
- (2) The State may submit to the Administrator a proposal to redesignate areas of the State Class I or Class II provided that:
 - (i) At least one public hearing has been held in accordance with procedures established in §51.102 of this chapter;
 - (ii) Other States, Indian Governing Bodies, and Federal Land Managers whose lands may be affected by the proposed redesignation were notified at least 30 days prior to the public hearing;
 - (iii) A discussion of the reasons for the proposed redesignation, including a satisfactory description and analysis of the health, environmental, economic, social and energy effects of the proposed redesignation, was prepared and made available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing contained appropriate notification of the availability of such discussion;
 - (iv) Prior to the issuance of notice respecting the redesignation of an area that includes any Federal lands, the State has provided written notice to the appropriate Federal Land Manager and afforded adequate opportunity (not in excess of 60 days) to confer with the State respecting the redesignation and to submit written comments and recommendations. In redesignating any area with respect to which any Federal Land Manager had submitted written comments and recommendations, the State shall have published a list of any inconsistency between such redesignation and such comments and recommendations (together with the reasons for making such redesignation against the recommendation of the Federal Land Manager); and
 - (v) The State has proposed the redesignation after consultation with the elected leadership of local and other substate general purpose governments in the area covered by the proposed redesignation.
- (3) Any area other than an area to which paragraph (e) of this section refers may be redesignated as Class III if—
 - (i) The redesignation would meet the requirements of paragraph (g)(2) of this section;
 - (ii) The redesignation, except any established by an Indian Governing Body, has been specifically approved by the Governor of the State, after consultation with the appropriate committees of the legislature, if it is in session, or with the leadership of the legislature, if it is not in session (unless State law provides that the redesignation must be specifically approved by State legislation) and if general purpose units of local government representing a majority of the residents of the area to be redesignated enact legislation or pass resolutions concurring in the redesignation;
 - (iii) The redesignation would not cause, or contribute to, a concentration of any air pollutant which would exceed any maximum allowable increase permitted under the classification of any other area or any national ambient air quality standard; and
 - (iv) Any permit application for any major stationary source or major modification, subject to review under paragraph (l) of this section, which could receive a permit under this section only if the area in question were redesignated as Class III, and any material submitted as part of that application, were available insofar as was practicable for public inspection prior to any public hearing on redesignation of the area as Class III.
- (4) Lands within the exterior boundaries of Indian Reservations may be redesignated only by the appropriate

Indian Governing Body. The appropriate Indian Governing Body may submit to the Administrator a proposal to redesignate areas Class I, Class II, or Class III: *Provided, That:*

- (i) The Indian Governing Body has followed procedures equivalent to those required of a State under paragraphs (g)(2), (g)(3)(iii), and (g)(3)(iv) of this section; and
 - (ii) Such redesignation is proposed after consultation with the State(s) in which the Indian Reservation is located and which border the Indian Reservation.
- (5) The Administrator shall disapprove, within 90 days of submission, a proposed redesignation of any area only if he finds, after notice and opportunity for public hearing, that such redesignation does not meet the procedural requirements of this paragraph or is inconsistent with paragraph (e) of this section. If any such disapproval occurs, the classification of the area shall be that which was in effect prior to the redesignation which was disapproved.
- (6) If the Administrator disapproves any proposed redesignation, the State or Indian Governing Body, as appropriate, may resubmit the proposal after correcting the deficiencies noted by the Administrator.
- (h) Stack heights.
- (1) The degree of emission limitation required for control of any air pollutant under this section shall not be affected in any manner by—
 - (i) So much of the stack height of any source as exceeds good engineering practice, or
 - (ii) Any other dispersion technique.
 - (2) Paragraph (h)(1) of this section shall not apply with respect to stack heights in existence before December 31, 1970, or to dispersion techniques implemented before then.
- (i) Exemptions.
- (1) The requirements of paragraphs (j) through (r) of this section shall not apply to a particular major stationary source or major modification, if;
 - (i) Construction commenced on the source or modification before August 7, 1977. The regulations at 40 CFR 52.21 as in effect before August 7, 1977, shall govern the review and permitting of any such source or modification; or
 - (ii) The source or modification was subject to the review requirements of 40 CFR 52.21(d)(1) as in effect before March 1, 1978, and the owner or operator:
 - (a) Obtained under 40 CFR 52.21 a final approval effective before March 1, 1978;
 - (b) Commenced construction before March 19, 1979; and
 - (c) Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable time; or
 - (iii) The source or modification was subject to 40 CFR 52.21 as in effect before March 1, 1978, and the review of an application for approval for the stationary source or modification under 40 CFR 52.21 would have been completed by March 1, 1978, but for an extension of the public comment period pursuant to a request for such an extension. In such a case, the application shall continue to be processed, and granted or denied, under 40 CFR 52.21 as in effect prior to March 1, 1978; or
 - (iv) The source or modification was not subject to 40 CFR 52.21 as in effect before March 1, 1978, and the owner or operator:
 - (a) Obtained all final Federal, state and local preconstruction approvals or permits necessary under the applicable State Implementation Plan before March 1, 1978;
 - (b) Commenced construction before March 19, 1979; and
 - (c) Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable time; or

- (v) The source or modification was not subject to 40 CFR 52.21 as in effect on June 19, 1978 or under the partial stay of regulations published on February 5, 1980 (45 FR 7800), and the owner or operator:
 - (a) Obtained all final Federal, state and local preconstruction approvals or permits necessary under the applicable State Implementation Plan before August 7, 1980;
 - (b) Commenced construction within 18 months from August 7, 1980, or any earlier time required under the applicable State Implementation Plan; and
 - (c) Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable time; or
- (vi) The source or modification would be a nonprofit health or nonprofit educational institution, or a major modification would occur at such an institution, and the governor of the state in which the source or modification would be located requests that it be exempt from those requirements; or
- (vii) The source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and the source does not belong to any of the following categories:
 - (a) Coal cleaning plants (with thermal dryers);
 - (b) Kraft pulp mills;
 - (c) Portland cement plants;
 - (d) Primary zinc smelters;
 - (e) Iron and steel mills;
 - (f) Primary aluminum ore reduction plants;
 - (g) Primary copper smelters;
 - (h) Municipal incinerators capable of charging more than 250 tons of refuse per day;
 - (i) Hydrofluoric, sulfuric, or nitric acid plants;
 - (j) Petroleum refineries;
 - (k) Lime plants;
 - (l) Phosphate rock processing plants;
 - (m) Coke oven batteries;
 - (n) Sulfur recovery plants;
 - (o) Carbon black plants (furnace process);
 - (p) Primary lead smelters;
 - (q) Fuel conversion plants;
 - (r) Sintering plants;
 - (s) Secondary metal production plants;
 - (t) Chemical process plants—The term chemical processing plant shall not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;
 - (u) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
 - (v) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
 - (w) Taconite ore processing plants;
 - (x) Glass fiber processing plants;
 - (y) Charcoal production plants;
 - (z) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input;
 - (aa) Any other stationary source category which, as of August 7, 1980, is being regulated under

- section 111 or 112 of the Act; or
- (viii) The source is a portable stationary source which has previously received a permit under this section, and
 - (a) The owner or operator proposes to relocate the source and emissions of the source at the new location would be temporary; and
 - (b) The emissions from the source would not exceed its allowable emissions; and
 - (c) The emissions from the source would impact no Class I area and no area where an applicable increment is known to be violated; and
 - (d) Reasonable notice is given to the Administrator prior to the relocation identifying the proposed new location and the probable duration of operation at the new location. Such notice shall be given to the Administrator not less than 10 days in advance of the proposed relocation unless a different time duration is previously approved by the Administrator.
 - (ix) The source or modification was not subject to §52.21, with respect to particulate matter, as in effect before July 31, 1987, and the owner or operator:
 - (a) Obtained all final Federal, State, and local preconstruction approvals or permits necessary under the applicable State implementation plan before July 31, 1987;
 - (b) Commenced construction within 18 months after July 31, 1987, or any earlier time required under the State implementation plan; and
 - (c) Did not discontinue construction for a period of 18 months or more and completed construction within a reasonable period of time.
 - (x) The source or modification was subject to 40 CFR 52.21, with respect to particulate matter, as in effect before July 31, 1987 and the owner or operator submitted an application for a permit under this section before that date, and the Administrator subsequently determines that the application as submitted was complete with respect to the particular matter requirements then in effect in the section. Instead, the requirements of paragraphs (j) through (r) of this section that were in effect before July 31, 1987 shall apply to such source or modification.
- (2) The requirements of paragraphs (j) through (r) of this section shall not apply to a major stationary source or major modification with respect to a particular pollutant if the owner or operator demonstrates that, as to that pollutant, the source or modification is located in an area designated as nonattainment under section 107 of the Act. Nonattainment designations for revoked NAAQS, as contained in 40 CFR part 81, shall not be viewed as current designations under section 107 of the Act for purposes of determining the applicability of paragraphs (j) through (r) of this section to a major stationary source or major modification after the revocation of that NAAQS is effective.
 - (3) The requirements of paragraphs (k), (m) and (o) of this section shall not apply to a major stationary source or major modification with respect to a particular pollutant, if the allowable emissions of that pollutant from the source, or the net emissions increase of that pollutant from the modification:
 - (i) Would impact no Class I area and no area where an applicable increment is known to be violated, and
 - (ii) Would be temporary.
 - (4) The requirements of paragraphs (k), (m) and (o) of this section as they relate to any maximum allowable increase for a Class II area shall not apply to a major modification at a stationary source that was in existence on March 1, 1978, if the net increase in allowable emissions of each regulated NSR pollutant from the modification after the application of best available control technology would be less than 50 tons per year.
 - (5) The Administrator may exempt a stationary source or modification from the requirements of paragraph (m) of this section, with respect to monitoring for a particular pollutant if:
 - (i) The emissions increase of the pollutant from the new source or the net emissions increase of the pollutant from the modification would cause, in any area, air quality impacts less than the following

amounts:

- (a) Carbon monoxide—575 µg/m³, 8-hour average;
- (b) Nitrogen dioxide—14 µg/m³, annual average;
- (c) PM_{2.5}—0 µg/m³;

Note to paragraph (i)(5)(i)(c): In accordance with *Sierra Club v. EPA*, 706 F.3d 428 (DC Cir. 2013), no exemption is available with regard to PM_{2.5}.

- (d) PM₁₀—10 µg/m³, 24-hour average;
- (e) Sulfur dioxide—13 µg/m³, 24-hour average;
- (f) Ozone;
- (g) Lead—0.1 µg/m³, 3-month average;
- (h) Fluorides—0.25 µg/m³, 24-hour average;
- (i) Total reduced sulfur—10 µg/m³, 1-hour average;
- (j) Hydrogen sulfide—0.2 µg/m³, 1-hour average;
- (k) Reduced sulfur compounds—10 µg/m³, 1-hour average; or

Note to paragraph (c)(50)(i)(f): No de minimis air quality level is provided for ozone. However, any net emissions increase of 100 tons per year or more of volatile organic compounds or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.

- (ii) The concentrations of the pollutant in the area that the source or modification would affect are less than the concentrations listed in paragraph (i)(5)(i) of this section; or
 - (iii) The pollutant is not listed in paragraph (i)(5)(i) of this section.
- (6) The requirements for best available control technology in paragraph (j) of this section and the requirements for air quality analyses in paragraph (m)(1) of this section, shall not apply to a particular stationary source or modification that was subject to 40 CFR 52.21 as in effect on June 19, 1978, if the owner or operator of the source or modification submitted an application for a permit under those regulations before August 7, 1980, and the Administrator subsequently determines that the application as submitted before that date was complete. Instead, the requirements at 40 CFR 52.21(j) and (n) as in effect on June 19, 1978 apply to any such source or modification.
- (7) (i) The requirements for air quality monitoring in paragraphs (m)(1) (ii) through (iv) of this section shall not apply to a particular source or modification that was subject to 40 CFR 52.21 as in effect on June 19, 1978, if the owner or operator of the source or modification submits an application for a permit under this section on or before June 8, 1981, and the Administrator subsequently determines that the application as submitted before that date was complete with respect to the requirements of this section other than those in paragraphs (m)(1) (ii) through (iv) of this section, and with respect to the requirements for such analyses at 40 CFR 52.21(m)(2) as in effect on June 19, 1978. Instead, the latter requirements shall apply to any such source or modification.
- (ii) The requirements for air quality monitoring in paragraphs (m)(1) (ii) through (iv) of this section shall not apply to a particular source or modification that was not subject to 40 CFR 52.21 as in effect on June 19, 1978, if the owner or operator of the source or modification submits an application for a permit under this section on or before June 8, 1981, and the Administrator subsequently determines that the application as submitted before that date was complete, except with respect to the requirements in paragraphs (m)(1) (ii) through (iv).
- (8) (i) At the discretion of the Administrator, the requirements for air quality monitoring of PM₁₀ in paragraphs (m)(1) (i)-(iv) of this section may not apply to a particular source or modification when the owner or operator of the source or modification submits an application for a permit under this section on or before June 1, 1988 and the Administrator subsequently determines that the application as submitted before that date was complete, except with respect to the requirements for monitoring particulate matter in paragraphs (m)(1) (i)-(iv).

- (ii) The requirements for air quality monitoring of PM_{10} in paragraphs (m)(1), (ii) and (iv) and (m)(3) of this section shall apply to a particular source or modification if the owner or operator of the source or modification submits an application for a permit under this section after June 1, 1988 and no later than December 1, 1988. The data shall have been gathered over at least the period from February 1, 1988 to the date the application becomes otherwise complete in accordance with the provisions set forth under paragraph (m)(1)(viii) of this section, except that if the Administrator determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than 4 months), the data that paragraph (m)(1)(iii) requires shall have been gathered over a shorter period.
- (9) The requirements of paragraph (k)(1)(ii) of this section shall not apply to a stationary source or modification with respect to any maximum allowable increase for nitrogen oxides if the owner or operator of the source or modification submitted an application for a permit under this section before the provisions embodying the maximum allowable increase took effect as part of the applicable implementation plan and the Administrator subsequently determined that the application as submitted before that date was complete.
- (10) The requirements in paragraph (k)(1)(ii) of this section shall not apply to a stationary source or modification with respect to any maximum allowable increase for PM_{10} if (i) the owner or operator of the source or modification submitted an application for a permit under this section before the provisions embodying the maximum allowable increases for PM_{10} took effect in an implementation plan to which this section applies, and (ii) the Administrator subsequently determined that the application as submitted before that date was otherwise complete. Instead, the requirements in paragraph (k)(1)(ii) shall apply with respect to the maximum allowable increases for TSP as in effect on the date the application was submitted.
- (11) The requirements of paragraph (k)(1) of this section shall not apply to a stationary source or modification with respect to the national ambient air quality standards for $PM_{2.5}$ in effect on March 18, 2013 if:
 - (i) The Administrator has determined a permit application subject to this section to be complete on or before December 14, 2012. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for $PM_{2.5}$ in effect at the time the Administrator determined the permit application to be complete; or
 - (ii) The Administrator has first published before March 18, 2013 a public notice that a draft permit subject to this section has been prepared. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for $PM_{2.5}$ in effect on the date the Administrator first published a public notice that a draft permit has been prepared.
- (12) The requirements of paragraph (k)(1) of this section shall not apply to a permit application for a stationary source or modification with respect to the revised national ambient air quality standards for ozone published on October 26, 2015 if:
 - (i) The Administrator has determined the permit application subject to this section to be complete on or before October 1, 2015. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for ozone in effect at the time the Administrator determined the permit application to be complete; or
 - (ii) The Administrator has first published before December 28, 2015 a public notice of a preliminary determination or draft permit for the permit application subject to this section. Instead, the requirements in paragraph (k)(1) of this section shall apply with respect to the national ambient air quality standards for ozone in effect on the date the Administrator first published a public notice of a preliminary determination or draft permit.
- (j) Control technology review.
 - (1) A major stationary source or major modification shall meet each applicable emissions limitation under the State Implementation Plan and each applicable emissions standard and standard of performance under 40 CFR parts 60 and 61.
 - (2) A new major stationary source shall apply best available control technology for each regulated NSR

pollutant that it would have the potential to emit in significant amounts.

- (3) A major modification shall apply best available control technology for each regulated NSR pollutant for which it would result in a significant net emissions increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.
- (4) For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.

(k) Source impact analysis—

- (1) *Required demonstration.* The owner or operator of the proposed source or modification shall demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of:
 - (i) Any national ambient air quality standard in any air quality control region; or
 - (ii) Any applicable maximum allowable increase over the baseline concentration in any area.

(2) [Reserved]

(l) Air quality models.

- (1) All estimates of ambient concentrations required under this paragraph shall be based on applicable air quality models, data bases, and other requirements specified in appendix W of part 51 of this chapter (Guideline on Air Quality Models).
- (2) Where an air quality model specified in appendix W of part 51 of this chapter (Guideline on Air Quality Models) is inappropriate, the model may be modified or another model substituted. Such a modification or substitution of a model may be made on a case-by-case basis or, where appropriate, on a generic basis for a specific state program. Written approval of the Administrator must be obtained for any modification or substitution. In addition, use of a modified or substituted model must be subject to notice and opportunity for public comment under procedures developed in accordance with paragraph (q) of this section.

(m) Air quality analysis—

(1) Preapplication analysis.

- (i) Any application for a permit under this section shall contain an analysis of ambient air quality in the area that the major stationary source or major modification would affect for each of the following pollutants:
 - (a) For the source, each pollutant that it would have the potential to omit in a significant amount;
 - (b) For the modification, each pollutant for which it would result in a significant net emissions increase.
- (ii) With respect to any such pollutant for which no National Ambient Air Quality Standard exists, the analysis shall contain such air quality monitoring data as the Administrator determines is necessary to assess ambient air quality for that pollutant in any area that the emissions of that pollutant would affect.
- (iii) With respect to any such pollutant (other than nonmethane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard or any maximum allowable increase.
- (iv) In general, the continuous air quality monitoring data that is required shall have been gathered over a

- period of at least one year and shall represent at least the year preceding receipt of the application, except that, if the Administrator determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than four months), the data that is required shall have been gathered over at least that shorter period.
- (v) For any application which becomes complete, except as to the requirements of paragraphs (m)(1) (iii) and (iv) of this section, between June 8, 1981, and February 9, 1982, the data that paragraph (m)(1)(iii) of this section, requires shall have been gathered over at least the period from February 9, 1981, to the date the application becomes otherwise complete, except that:
- (a) If the source or modification would have been major for that pollutant under 40 CFR 52.21 as in effect on June 19, 1978, any monitoring data shall have been gathered over at least the period required by those regulations.
- (b) If the Administrator determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than four months), the data that paragraph (m)(1)(iii) of this section, requires shall have been gathered over at least that shorter period.
- (c) If the monitoring data would relate exclusively to ozone and would not have been required under 40 CFR 52.21 as in effect on June 19, 1978, the Administrator may waive the otherwise applicable requirements of this paragraph (v) to the extent that the applicant shows that the monitoring data would be unrepresentative of air quality over a full year.
- (vi) The owner or operator of a proposed stationary source or modification of volatile organic compounds who satisfies all conditions of 40 CFR part 51 Appendix S, section IV may provide post-approval monitoring data for ozone in lieu of providing preconstruction data as required under paragraph (m)(1) of this section.
- (vii) For any application that becomes complete, except as to the requirements of paragraphs (m)(1) (iii) and (iv) pertaining to PM₁₀, after December 1, 1988 and no later than August 1, 1989 the data that paragraph (m)(1)(iii) requires shall have been gathered over at least the period from August 1, 1988 to the date the application becomes otherwise complete, except that if the Administrator determines that a complete and adequate analysis can be accomplished with monitoring data over a shorter period (not to be less than 4 months), the data that paragraph (m)(1)(iii) requires shall have been gathered over that shorter period.
- (viii) With respect to any requirements for air quality monitoring of PM₁₀ under paragraphs (i)(11) (i) and (ii) of this section the owner or operator of the source or modification shall use a monitoring method approved by the Administrator and shall estimate the ambient concentrations of PM₁₀ using the data collected by such approved monitoring method in accordance with estimating procedures approved by the Administrator.
- (2) Post-construction monitoring. The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the Administrator determines is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in any area.
- (3) Operations of monitoring stations. The owner or operator of a major stationary source or major modification shall meet the requirements of Appendix B to part 58 of this chapter during the operation of monitoring stations for purposes of satisfying paragraph (m) of this section.
- (n) *Source information.* The owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or make any determination required under this section.
- (1) With respect to a source or modification to which paragraphs (j), (l), (n) and (p) of this section apply, such information shall include:
- (i) A description of the nature, location, design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout;
- (ii) A detailed schedule for construction of the source or modification;

- (iii) A detailed description as to what system of continuous emission reduction is planned for the source or modification, emission estimates, and any other information necessary to determine that best available control technology would be applied.
- (2) Upon request of the Administrator, the owner or operator shall also provide information on:
 - (i) The air quality impact of the source or modification, including meteorological and topographical data necessary to estimate such impact; and
 - (ii) The air quality impacts, and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.
- (o) Additional impact analyses.
 - (1) The owner or operator shall provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source or modification. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or recreational value.
 - (2) The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial and other growth associated with the source or modification.
 - (3) *Visibility monitoring.* The Administrator may require monitoring of visibility in any Federal class I area near the proposed new stationary source for major modification for such purposes and by such means as the Administrator deems necessary and appropriate.
- (p) Sources impacting Federal Class I areas—additional requirements—
 - (1) *Notice to Federal land managers.* The Administrator shall provide written notice of any permit application for a proposed major stationary source or major modification, the emissions from which may affect a Class I area, to the Federal land manager and the Federal official charged with direct responsibility for management of any lands within any such area. Such notification shall include a copy of all information relevant to the permit application and shall be given within 30 days of receipt and at least 60 days prior to any public hearing on the application for a permit to construct. Such notification shall include an analysis of the proposed source's anticipated impacts on visibility in the Federal Class I area. The Administrator shall also provide the Federal land manager and such Federal officials with a copy of the preliminary determination required under paragraph (q) of this section, and shall make available to them any materials used in making that determination, promptly after the Administrator makes such determination. Finally, the Administrator shall also notify all affected Federal land managers within 30 days of receipt of any advance notification of any such permit application.
 - (2) *Federal Land Manager.* The Federal Land Manager and the Federal official charged with direct responsibility for management of such lands have an affirmative responsibility to protect the air quality related values (including visibility) of such lands and to consider, in consultation with the Administrator, whether a proposed source or modification will have an adverse impact on such values.
 - (3) *Visibility analysis.* The Administrator shall consider any analysis performed by the Federal land manager, provided within 30 days of the notification required by paragraph (p)(1) of this section, that shows that a proposed new major stationary source or major modification may have an adverse impact on visibility in any Federal Class I area. Where the Administrator finds that such an analysis does not demonstrate to the satisfaction of the Administrator that an adverse impact on visibility will result in the Federal Class I area, the Administrator must, in the notice of public hearing on the permit application, either explain his decision or give notice as to where the explanation can be obtained.
 - (4) *Denial—impact on air quality related values.* The Federal Land Manager of any such lands may demonstrate to the Administrator that the emissions from a proposed source or modification would have an adverse impact on the air quality-related values (including visibility) of those lands, notwithstanding that the change in air quality resulting from emissions from such source or modification would not cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the

Administrator concurs with such demonstration, then he shall not issue the permit.

- (5) *Class I variances.* The owner or operator of a proposed source or modification may demonstrate to the Federal Land Manager that the emissions from such source or modification would have no adverse impact on the air quality related values of any such lands (including visibility), notwithstanding that the change in air quality resulting from emissions from such source or modification would cause or contribute to concentrations which would exceed the maximum allowable increases for a Class I area. If the Federal land manager concurs with such demonstration and he so certifies, the State may authorize the Administrator: *Provided*, That the applicable requirements of this section are otherwise met, to issue the permit with such emission limitations as may be necessary to assure that emissions of sulfur dioxide, PM_{2.5}, PM₁₀, and nitrogen oxides would not exceed the following maximum allowable increases over minor source baseline concentration for such pollutants:

| Pollutant | Maximum allowable increase (micrograms per cubic meter) |
|------------------------|---|
| PM _{2.5} : | |
| Annual arithmetic mean | 4 |
| 24-hr maximum | 9 |
| PM ₁₀ : | |
| Annual arithmetic mean | 17 |
| 24-hr maximum | 30 |
| Sulfur dioxide: | |
| Annual arithmetic mean | 20 |
| 24-hr maximum | 91 |
| 3-hr maximum | 325 |
| Nitrogen dioxide: | |
| Annual arithmetic mean | 25 |

- (6) *Sulfur dioxide variance by Governor with Federal Land Manager's concurrence.* The owner or operator of a proposed source or modification which cannot be approved under paragraph (q)(4) of this section may demonstrate to the Governor that the source cannot be constructed by reason of any maximum allowable increase for sulfur dioxide for a period of twenty-four hours or less applicable to any Class I area and, in the case of Federal mandatory Class I areas, that a variance under this clause would not adversely affect the air quality related values of the area (including visibility). The Governor, after consideration of the Federal Land Manager's recommendation (if any) and subject to his concurrence, may, after notice and public hearing, grant a variance from such maximum allowable increase. If such variance is granted, the Administrator shall issue a permit to such source or modification pursuant to the requirements of paragraph (q)(7) of this section: *Provided*, That the applicable requirements of this section are otherwise met.
- (7) *Variance by the Governor with the President's concurrence.* In any case where the Governor recommends a variance in which the Federal Land Manager does not concur, the recommendations of the Governor and the Federal Land Manager shall be transmitted to the President. The President may approve the Governor's recommendation if he finds that the variance is in the national interest. If the variance is approved, the Administrator shall issue a permit pursuant to the requirements of paragraph (q)(7) of this section: *Provided*, That the applicable requirements of this section are otherwise met.
- (8) *Emission limitations for Presidential or gubernatorial variance.* In the case of a permit issued pursuant to paragraph (q) (5) or (6) of this section the source or modification shall comply with such emission limitations as may be necessary to assure that emissions of sulfur dioxide from the source or modification would not (during

any day on which the otherwise applicable maximum allowable increases are exceeded) cause or contribute to concentrations which would exceed the following maximum allowable increases over the baseline concentration and to assure that such emissions would not cause or contribute to concentrations which exceed the otherwise applicable maximum allowable increases for periods of exposure of 24 hours or less for more than 18 days, not necessarily consecutive, during any annual period:

Maximum Allowable Increase

[Micrograms per cubic meter]

| Period of exposure | Terrain areas | |
|--------------------|---------------|------|
| | Low | High |
| 24-hr maximum | 36 | 62 |
| 3-hr maximum | 130 | 221 |

(q) *Public participation.* The Administrator shall follow the applicable procedures of 40 CFR part 124 in processing applications under this section.

(r) Source obligation.

- (1) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.
- (2) Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Administrator may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must Commence Construction within 18 months of the projected and approved commencement date.
- (3) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the State implementation plan and any other requirements under local, State, or Federal law.
- (4) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements or paragraphs (j) through (s) of this section shall apply to the source or modification as though construction had not yet commenced on the source or modification.
- (5) [Reserved]
- (6) Except as otherwise provided in paragraph (r)(6)(vi)(b) of this section, the provisions of this paragraph (r)(6) apply with respect to any regulated NSR pollutant emitted from projects at existing emissions units at a major stationary source (other than projects at a source with a PAL) in circumstances where there is a reasonable possibility, within the meaning of paragraph (r)(6)(vi) of this section, that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant, and the owner or operator elects to use the method specified in paragraphs (b)(41)(ii)(a) through (c) of this section for calculating projected actual emissions.
 - (i) Before beginning actual construction of the project, the owner or operator shall document and

maintain a record of the following information:

- (a) A description of the project;
 - (b) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
 - (c) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph (b)(41)(ii)(c) of this section and an explanation for why such amount was excluded, and any netting calculations, if applicable.
- (ii) If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in paragraph (r)(6)(i) of this section to the Administrator. Nothing in this paragraph (r)(6)(ii) shall be construed to require the owner or operator of such a unit to obtain any determination from the Administrator before beginning actual construction.
- (iii) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in paragraph (r)(6)(i)(b) of this section; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit that regulated NSR pollutant at such emissions unit.
- (iv) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the Administrator within 60 days after the end of each year during which records must be generated under paragraph (r)(6)(iii) of this section setting out the unit's annual emissions during the calendar year that preceded submission of the report.
- (v) If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the Administrator if the annual emissions, in tons per year, from the project identified in paragraph (r)(6)(i) of this section, exceed the baseline actual emissions (as documented and maintained pursuant to paragraph (r)(6)(i)(c) of this section), by a significant amount (as defined in paragraph (b)(23) of this section) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (r)(6)(i)(c) of this section. Such report shall be submitted to the Administrator within 60 days after the end of such year. The report shall contain the following:
 - (a) The name, address and telephone number of the major stationary source;
 - (b) The annual emissions as calculated pursuant to paragraph (r)(6)(iii) of this section; and
 - (c) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).
- (vi) A “reasonable possibility” under paragraph (r)(6) of this section occurs when the owner or operator calculates the project to result in either:
 - (a) A projected actual emissions increase of at least 50 percent of the amount that is a “significant emissions increase,” as defined under paragraph (b)(40) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant; or
 - (b) A projected actual emissions increase that, added to the amount of emissions excluded under paragraph (b)(41)(ii)(c) of this section, sums to at least 50 percent of the amount that is a “significant emissions increase,” as defined under paragraph (b)(40) of this section (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of paragraph (r)(6)(vi)(b) of this section, and not also within the meaning of paragraph (r)(6)(vi)(a) of this section, then provisions (r)(6)(ii) through (v) do not apply to the project.
- (7) The owner or operator of the source shall make the information required to be documented and maintained pursuant to paragraph (r)(6) of this section available for review upon a request for inspection

by the Administrator or the general public pursuant to the requirements contained in §70.4(b)(3)(viii) of this chapter.

- (s) *Environmental impact statements.* Whenever any proposed source or modification is subject to action by a Federal Agency which might necessitate preparation of an environmental impact statement pursuant to the National Environmental Policy Act (42 U.S.C. 4321), review by the Administrator conducted pursuant to this section shall be coordinated with the broad environmental reviews under that Act and under section 309 of the Clean Air Act to the maximum extent feasible and reasonable.
- (t) *Disputed permits or redesignations.* If any State affected by the redesignation of an area by an Indian Governing Body, or any Indian Governing Body of a tribe affected by the redesignation of an area by a State, disagrees with such redesignation, or if a permit is proposed to be issued for any major stationary source or major modification proposed for construction in any State which the Governor of an affected State or Indian Governing Body of an affected tribe determines will cause or contribute to a cumulative change in air quality in excess of that allowed in this part within the affected State or Indian Reservation, the Governor or Indian Governing Body may request the Administrator to enter into negotiations with the parties involved to resolve such dispute. If requested by any State or Indian Governing Body involved, the Administrator shall make a recommendation to resolve the dispute and protect the air quality related values of the lands involved. If the parties involved do not reach agreement, the Administrator shall resolve the dispute and his determination, or the results of agreements reached through other means, shall become part of the applicable State implementation plan and shall be enforceable as part of such plan. In resolving such disputes relating to area redesignation, the Administrator shall consider the extent to which the lands involved are of sufficient size to allow effective air quality management or have air quality related values of such an area.
- (u) *Delegation of authority.*
- (1) The Administrator shall have the authority to delegate his responsibility for conducting source review pursuant to this section, in accordance with paragraph (u)(2) of this section.
 - (2) Where the Administrator delegates the responsibility for conducting source review under this section to any agency other than a Regional Office of the Environmental Protection Agency, the following provisions shall apply:
 - (i) Where the delegate agency is not an air pollution control agency, it shall consult with the appropriate state, tribe, and local air pollution control agency prior to making any determination under this section. Similarly, where the delegate agency does not have continuing responsibility for managing land use, it shall consult with the appropriate state, tribe, and local agency primarily responsible for managing land use prior to making any determination under this section.
 - (ii) The delegate agency shall send a copy of any public comment notice required under paragraph (r) of this section to the Administrator through the appropriate Regional Office.
 - (3) In the case of a source or modification which proposes to construct in a class III area, emissions from which would cause or contribute to air quality exceeding the maximum allowable increase applicable if the area were designated a class II area, and where no standard under section 111 of the act has been promulgated for such source category, the Administrator must approve the determination of best available control technology as set forth in the permit.
- (v) *Innovative control technology.*
- (1) An owner or operator of a proposed major stationary source or major modification may request the Administrator in writing no later than the close of the comment period under 40 CFR 124.10 to approve a system of innovative control technology.
 - (2) The Administrator shall, with the consent of the governor(s) of the affected state(s), determine that the source or modification may employ a system of innovative control technology, if:

- (i) The proposed control system would not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation or function;
 - (ii) The owner or operator agrees to achieve a level of continuous emissions reduction equivalent to that which would have been required under paragraph (j)(2) of this section, by a date specified by the Administrator. Such date shall not be later than 4 years from the time of startup or 7 years from permit issuance;
 - (iii) The source or modification would meet the requirements of paragraphs (j) and (k) of this section, based on the emissions rate that the stationary source employing the system of innovative control technology would be required to meet on the date specified by the Administrator;
 - (iv) The source or modification would not before the date specified by the Administrator:
 - (a) Cause or contribute to a violation of an applicable national ambient air quality standard; or
 - (b) Impact any area where an applicable increment is known to be violated; and
 - (v) All other applicable requirements including those for public participation have been met.
 - (vi) The provisions of paragraph (p) of this section (relating to Class I areas) have been satisfied with respect to all periods during the life of the source or modification.
- (3) The Administrator shall withdraw any approval to employ a system of innovative control technology made under this section, if:
- (i) The proposed system fails by the specified date to achieve the required continuous emissions reduction rate; or
 - (ii) The proposed system fails before the specified date so as to contribute to an unreasonable risk to public health, welfare, or safety; or
 - (iii) The Administrator decides at any time that the proposed system is unlikely to achieve the required level of control or to protect the public health, welfare, or safety.
- (4) If a source or modification fails to meet the required level of continuous emission reduction within the specified time period or the approval is withdrawn in accordance with paragraph (v)(3) of this section, the Administrator may allow the source or modification up to an additional 3 years to meet the requirement for the application of best available control technology through use of a demonstrated system of control.
- (w) Permit rescission.
- (1) Any permit issued under this section or a prior version of this section shall remain in effect, unless and until it expires under paragraph (r) of this section or is rescinded under this paragraph (w).
 - (2) An owner or operator of a stationary source or modification who holds a permit issued under this section for the construction of a new source or modification that meets the requirements in paragraph (w)(3) of this section may request that the Administrator rescind the permit or a particular portion of the permit.
 - (3) The Administrator may grant an application for rescission if the application shows that this section would not apply to the source or modification.
 - (4) If the Administrator rescinds a permit under this paragraph, the Administrator shall post a notice of the rescission determination on a public Web site identified by the Administrator within 60 days of the rescission,
- (x)-(z) [Reserved]
- (aa) *Actuals PALs*. The provisions in paragraphs (aa)(1) through (15) of this section govern actuals PALs.
- (1) *Applicability*.
 - (i) The Administrator may approve the use of an actuals PAL, including for GHGs on either a mass basis or a CO₂e basis, for any existing major stationary source or any existing GHG-only source if the PAL meets the requirements in paragraphs (aa)(1) through (15) of this section. The term “PAL” shall mean

“actuals PAL” throughout paragraph (aa) of this section.

- (ii) Any physical change in or change in the method of operation of a major stationary source or a GHG-only source that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs (aa)(1) through (15) of this section, and complies with the PAL permit:
 - (a) Is not a major modification for the PAL pollutant;
 - (b) Does not have to be approved through the PSD program;
 - (c) Is not subject to the provisions in paragraph (r)(4) of this section (restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of the major NSR program); and
 - (d) Does not make GHGs subject to regulation as defined by paragraph (b)(49) of this section.
 - (iii) Except as provided under paragraph (aa)(1)(ii)(c) of this section, a major stationary source or a GHG-only source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.
- (2) *Definitions.* For the purposes of this section, the definitions in paragraphs (aa)(2)(i) through (xi) of this section apply. When a term is not defined in these paragraphs, it shall have the meaning given in paragraph (b) of this section or in the Act.
- (i) **Actuals PAL** for a major stationary source means a PAL based on the baseline actual emissions (as defined in paragraph (b)(48) of this section) of all emissions units (as defined in paragraph (b)(7) of this section) at the source, that emit or have the potential to emit the PAL pollutant. For a GHG-only source, *actuals PAL* means a PAL based on the baseline actual emissions (as defined in paragraph (aa)(2)(xiii) of this section) of all emissions units (as defined in paragraph (aa)(2)(xiv) of this section) at the source, that emit or have the potential to emit GHGs.
 - (ii) **Allowable emissions** means “allowable emissions” as defined in paragraph (b)(16) of this section, except as this definition is modified according to paragraphs (aa)(2)(ii)(a) and (b) of this section.
 - (a) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.
 - (b) An emissions unit's potential to emit shall be determined using the definition in paragraph (b)(4) of this section, except that the words “or enforceable as a practical matter” should be added after “federally enforceable.”
 - (iii) **Small emissions unit** means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in paragraph (b)(23) of this section or in the Act, whichever is lower. For a GHG PAL issued on a CO₂e basis, *small emissions unit* means an emissions unit that emits or has the potential to emit less than the amount of GHGs on a CO₂e basis defined as “significant” for the purposes of paragraph (b)(49)(iii) of this section at the time the PAL permit is being issued.
 - (iv) **Major emissions unit** means:
 - (a) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area; or
 - (b) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the Act for nonattainment areas. For example, in accordance with the definition of major stationary source in section 182(c) of the Act, an emissions unit would be a major emissions unit for VOC if the emissions unit is located in a serious ozone nonattainment area and it emits or has the potential to emit 50 or more tons of VOC per year.
 - (c) For a GHG PAL issued on a CO₂e basis, any emissions unit that emits or has the potential to emit equal to or greater than the amount of GHGs on a CO₂e basis that would be sufficient for a new source to trigger permitting requirements under paragraph (b)(49) of this section at the time the PAL

permit is being issued.

- (v) ***Plantwide applicability limitation (PAL)*** means an emission limitation expressed on a mass basis in tons per year, or expressed in tons per year CO₂e for a CO₂e-based GHG emission limitation, for a pollutant at a major stationary source or GHG-only source, that is enforceable as a practical matter and established source-wide in accordance with paragraphs (aa)(1) through (15) of this section.
- (vi) ***PAL effective date*** generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (vii) ***PAL effective period*** means the period beginning with the PAL effective date and ending 10 years later.
- (viii) ***PAL major modification*** means, notwithstanding paragraphs (b)(2), (b)(3), and (b)(49) of this section (the definitions for major modification, net emissions increase, and subject to regulation), any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.
- (ix) ***PAL permit*** means the major NSR permit, the minor NSR permit, or the State operating permit under a program that is approved into the State Implementation Plan, or the title V permit issued by the Administrator that establishes a PAL for a major stationary source or a GHG-only source.
- (x) ***PAL pollutant*** means the pollutant for which a PAL is established at a major stationary source or a GHG-only source. For a GHG-only source, the only available PAL pollutant is greenhouse gases.
- (xi) ***Significant emissions unit*** means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in paragraph (b)(23) of this section or in the Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in paragraph (aa)(2)(iv) of this section. For a GHG PAL issued on a CO₂e basis, *significant emissions unit* means any emissions unit that emits or has the potential to emit GHGs on a CO₂e basis in amounts equal to or greater than the amount that would qualify the unit as small emissions unit as defined in paragraph (aa)(2)(iii) of this section, but less than the amount that would qualify the unit as a major emissions unit as defined in paragraph (aa)(2)(iv)(c) of this section.
- (xii) ***GHG-only source*** means any existing stationary source that emits or has the potential to emit GHGs in the amount equal to or greater than the amount of GHGs on a mass basis that would be sufficient for a new source to trigger permitting requirements for GHGs under paragraph (b)(1) of this section and the amount of GHGs on a CO₂e basis that would be sufficient for a new source to trigger permitting requirements for GHGs under paragraph (b)(49) of this section at the time the PAL permit is being issued, but does not emit or have the potential to emit any other non-GHG regulated NSR pollutant at or above the applicable major source threshold. A GHG-only source may only obtain a PAL for GHG emissions under paragraph (aa) of this section.
- (xiii) ***Baseline actual emissions*** for a GHG PAL means the average rate, in tons per year CO₂e or tons per year GHG, as applicable, at which the emissions unit actually emitted GHGs during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Administrator for a permit required under this section or by the permitting authority for a permit required by a plan, whichever is earlier. For any existing electric utility steam generating unit, *baseline actual emissions* for a GHG PAL means the average rate, in tons per year CO₂e or tons per year GHG, as applicable, at which the emissions unit actually emitted the GHGs during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding either the date the owner or operator begins actual construction of the project, except that the Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

- (a) The average rate shall include fugitive emissions to the extent quantifiable, and emissions

associated with startups, shutdowns, and malfunctions.

(b) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.

(c) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the stationary source must currently comply, had such stationary source been required to comply with such limitations during the consecutive 24-month period.

(d) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual GHG emissions and for adjusting this amount if required by paragraphs (aa)(2)(xiii)(b) and (c) of this section.

(xiv) **Emissions unit** with respect to GHGs means any part of a stationary source that emits or has the potential to emit GHGs. For purposes of this section, there are two types of emissions units as described in the following:

(a) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.

(b) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph (aa)(2)(xiv)(a) of this section.

(xv) **Minor source** means any stationary source that does not meet the definition of major stationary source in paragraph (b)(1) of this section for any pollutant at the time the PAL is issued.

(3) **Permit application requirements.** As part of a permit application requesting a PAL, the owner or operator of a major stationary source or a GHG-only source shall submit the following information to the Administrator for approval:

(i) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations, or work practices apply to each unit.

(ii) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown, and malfunction.

(iii) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (aa)(13)(i) of this section.

(iv) As part of a permit application requesting a GHG PAL, the owner or operator of a major stationary source or a GHG-only source shall submit a statement by the source owner or operator that clarifies whether the source is an existing major source as defined in paragraph (b)(1)(i)(a) and (b) of this section or a GHG-only source as defined in paragraph (aa)(2)(xii) of this section.

(4) General requirements for establishing PALs.

(i) The Administrator is allowed to establish a PAL at a major stationary source or a GHG-only source, provided that at a minimum, the requirements in paragraphs (aa)(4)(i)(a) through (g) of this section are met.

(a) The PAL shall impose an annual emission limitation expressed on a mass basis in tons per year, or expressed in tons per year CO₂e, that is enforceable as a practical matter, for the entire major stationary source or GHG-only source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source or GHG-only source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source or GHG-only source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

- (b) The PAL shall be established in a PAL permit that meets the public participation requirements in paragraph (aa)(5) of this section.
 - (c) The PAL permit shall contain all the requirements of paragraph (aa)(7) of this section.
 - (d) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source or GHG-only source.
 - (e) Each PAL shall regulate emissions of only one pollutant.
 - (f) Each PAL shall have a PAL effective period of 10 years.
 - (g) The owner or operator of the major stationary source or GHG-only source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs (aa)(12) through (14) of this section for each emissions unit under the PAL through the PAL effective period.
 - (ii) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant that occur during the PAL effective period creditable as decreases for purposes of offsets under §51.165(a)(3)(ii) of this chapter unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.
- (5) *Public participation requirements for PALs.* PALs for existing major stationary sources or GHG-only sources shall be established, renewed, or increased through a procedure that is consistent with §§51.160 and 51.161 of this chapter. This includes the requirement that the Administrator provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The Administrator must address all material comments before taking final action on the permit.
- (6) Setting the 10-year actuals PAL level.
- (i) Except as provided in paragraph (aa)(6)(ii) and (iii) of this section, the plan shall provide that the actuals PAL level for a major stationary source or a GHG-only source shall be established as the sum of the baseline actual emissions (as defined in paragraph (b)(48) of this section or, for GHGs, paragraph (aa)(2)(xiii) of this section) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph (b)(23) of this section or under the Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL level. The reviewing authority shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the reviewing authority is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO_x to a new rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).
 - (ii) For newly constructed units (which do not include modifications to existing units) on which actual construction began after the 24-month period, in lieu of adding the baseline actual emissions as specified in paragraph (aa)(6)(i) of this section, the emissions must be added to the PAL level in an amount equal to the potential to emit of the units.
 - (iii) For CO₂e based GHG PAL, the actuals PAL level shall be established as the sum of the GHGs baseline actual emissions (as defined in paragraph (aa)(2)(xiii) of this section) of GHGs for each emissions unit at the source, plus an amount equal to the amount defined as “significant” on a CO₂e basis for the purposes of paragraph (b)(49)(iii) at the time the PAL permit is being issued. When establishing the actuals PAL level for a CO₂e-based PAL, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL level. The reviewing authority shall specify a reduced PAL level (in tons per year CO₂e)

in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or state regulatory requirement(s) that the reviewing authority is aware of prior to issuance of the PAL permit.

- (7) *Contents of the PAL permit.* The PAL permit must contain, at a minimum, the information in paragraphs (aa)(7)(i) through (xi) of this section.
- (i) The PAL pollutant and the applicable source-wide emission limitation in tons per year or tons per year CO₂e.
 - (ii) The PAL permit effective date and the expiration date of the PAL (PAL effective period).
 - (iii) Specification in the PAL permit that if a major stationary source or a GHG-only source owner or operator applies to renew a PAL in accordance with paragraph (aa)(10) of this section before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by a reviewing authority.
 - (iv) A requirement that emission calculations for compliance purposes must include emissions from startups, shutdowns, and malfunctions.
 - (v) A requirement that, once the PAL expires, the major stationary source or GHG-only source is subject to the requirements of paragraph (aa)(9) of this section.
 - (vi) The calculation procedures that the major stationary source or GHG-only source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total as required by paragraph (aa)(13)(i) of this section.
 - (vii) A requirement that the major stationary source or GHG-only source owner or operator monitor all emissions units in accordance with the provisions under paragraph (aa)(12) of this section.
 - (viii) A requirement to retain the records required under paragraph (aa)(13) of this section on site. Such records may be retained in an electronic format.
 - (ix) A requirement to submit the reports required under paragraph (aa)(14) of this section by the required deadlines.
 - (x) Any other requirements that the Administrator deems necessary to implement and enforce the PAL.
 - (xi) A permit for a GHG PAL issued to a GHG-only source shall also include a statement denoting that GHG emissions at the source will not be subject to regulation under paragraph (b)(49) of this section as long as the source complies with the PAL.
- (8) *PAL effective period and reopening of the PAL permit.* The requirements in paragraphs (aa)(8)(i) and (ii) of this section apply to actuals PALs.
- (i) *PAL effective period.* The Administrator shall specify a PAL effective period of 10 years.
 - (ii) *Reopening of the PAL permit.*
 - (a) During the PAL effective period, the Administrator must reopen the PAL permit to:
 - (1) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL;
 - (2) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under §51.165(a)(3)(ii) of this chapter; and
 - (3) Revise the PAL to reflect an increase in the PAL as provided under paragraph (aa)(11) of this section.
 - (b) The Administrator shall have discretion to reopen the PAL permit for the following:
 - (1) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) with compliance dates after the PAL effective date;

- (2) Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and that the State may impose on the major stationary source or GHG-only source under the State Implementation Plan; and
 - (3) Reduce the PAL if the reviewing authority determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
 - (c) Except for the permit reopening in paragraph (aa)(8)(ii)(a)(1) of this section for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of paragraph (aa)(5) of this section.
- (9) *Expiration of a PAL.* Any PAL that is not renewed in accordance with the procedures in paragraph (aa)(10) of this section shall expire at the end of the PAL effective period, and the requirements in paragraphs (aa)(9)(i) through (v) of this section shall apply.
 - (i) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in paragraphs (aa)(9)(i)(a) and (b) of this section.
 - (a) Within the time frame specified for PAL renewals in paragraph (aa)(10)(ii) of this section, the major stationary source or GHG-only source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Administrator) by distributing the PAL allowable emissions for the major stationary source or GHG-only source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under paragraph (aa)(10)(v) of this section, such distribution shall be made as if the PAL had been adjusted.
 - (b) The Administrator shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Administrator determines is appropriate.
 - (ii) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Administrator may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS, or CPMS to demonstrate compliance with the allowable emission limitation.
 - (iii) Until the Administrator issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under paragraph (aa)(9)(i)(b) of this section, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.
 - (iv) Any physical change or change in the method of operation at the major stationary source or GHG-only source will be subject to major NSR requirements if such change meets the definition of major modification in paragraph (b)(2) of this section.
 - (v) The major stationary source or GHG-only source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to paragraph (r)(4) of this section, but were eliminated by the PAL in accordance with the provisions in paragraph (aa)(1)(ii)(c) of this section.
- (10) *Renewal of a PAL.*
 - (i) The Administrator shall follow the procedures specified in paragraph (aa)(5) of this section in approving any request to renew a PAL for a major stationary source or a GHG-only source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the

source for consideration by the Administrator.

- (ii) *Application deadline.* A major stationary source or GHG-only source owner or operator shall submit a timely application to the Administrator to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source or GHG-only source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.
 - (iii) *Application requirements.* The application to renew a PAL permit shall contain the information required in paragraphs (aa)(10)(iii)(a) through (d) of this section.
 - (a) The information required in paragraphs (aa)(3)(i) through (iii) of this section.
 - (b) A proposed PAL level.
 - (c) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).
 - (d) Any other information the owner or operator wishes the Administrator to consider in determining the appropriate level for renewing the PAL.
 - (iv) *PAL adjustment.* In determining whether and how to adjust the PAL, the Administrator shall consider the options outlined in paragraphs (aa)(10)(iv)(a) and (b) of this section. However, in no case may any such adjustment fail to comply with paragraph (aa)(10)(iv)(c) of this section.
 - (a) If the emissions level calculated in accordance with paragraph (aa)(6) of this section is equal to or greater than 80 percent of the PAL level, the Administrator may renew the PAL at the same level without considering the factors set forth in paragraph (aa)(10)(iv)(b) of this section; or
 - (b) The Administrator may set the PAL at a level that he or she determines to be more representative of the source's baseline actual emissions, or that he or she determines to be more appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Administrator in his or her written rationale.
 - (c) Notwithstanding paragraphs (aa)(10)(iv)(a) and (b) of this section:
 - (1) If the potential to emit of the major stationary source or GHG-only source is less than the PAL, the Administrator shall adjust the PAL to a level no greater than the potential to emit of the source; and
 - (2) The Administrator shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source or GHG-only source has complied with the provisions of paragraph (aa)(11) of this section (increasing a PAL).
 - (v) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the Administrator has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.
- (11) Increasing a PAL during the PAL effective period.
- (i) The Administrator may increase a PAL emission limitation only if the major stationary source or GHG-only source complies with the provisions in paragraphs (aa)(11)(i)(a) through (d) of this section.
 - (a) The owner or operator of the major stationary source or GHG-only source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary or GHG-only source's emissions to equal or exceed its PAL.
 - (b) As part of this application, the major stationary source or GHG-only source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application

of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

(c) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in paragraph (aa)(11)(i)(a) of this section, regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the major NSR process (for example, BACT), even though they have also become subject to the PAL or continue to be subject to the PAL.

(d) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

- (ii) The Administrator shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with paragraph (aa)(11)(i)(b)), plus the sum of the baseline actual emissions of the small emissions units.
- (iii) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of paragraph (aa)(5) of this section.

(12) Monitoring requirements for PALs.

(i) General requirements.

(a) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time or CO₂e per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.

(b) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in paragraphs (aa)(12)(ii)(a) through (d) of this section and must be approved by the Administrator.

(c) Notwithstanding paragraph (aa)(12)(i)(b) of this section, you may also employ an alternative monitoring approach that meets paragraph (aa)(12)(i)(a) of this section if approved by the Administrator.

(d) Failure to use a monitoring system that meets the requirements of this section renders the PAL invalid.

- (ii) Minimum performance requirements for approved monitoring approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in paragraphs (aa)(12)(iii) through (ix) of this section:

- (a) Mass balance calculations for activities using coatings or solvents;
- (b) CEMS;
- (c) CPMS or PEMS; and
- (d) Emission factors.

- (iii) *Mass balance calculations.* An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:

- (a) Provide a demonstrated means of validating the published content of the PAL pollutant that is

- contained in or created by all materials used in or at the emissions unit;
- (b) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
- (c) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Administrator determines there is site-specific data or a site-specific monitoring program to support another content within the range.
- (iv) *CEMS*. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (a) CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and
- (b) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.
- (v) *CPMS or PEMS*. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (a) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and
- (b) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Administrator, while the emissions unit is operating.
- (vi) *Emission factors*. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
- (a) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
- (b) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and
- (c) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the Administrator determines that testing is not required.
- (vii) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.
- (viii) Notwithstanding the requirements in paragraphs (aa)(12)(iii) through (vii) of this section, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Administrator shall, at the time of permit issuance:
- (a) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
- (b) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.
- (ix) *Re-validation*. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Administrator. Such testing must occur at least once every 5 years after issuance of the PAL.
- (13) Recordkeeping requirements.

- (i) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of paragraph (aa) of this section and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.
- (ii) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:
 - (a) A copy of the PAL permit application and any applications for revisions to the PAL; and
 - (b) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.
- (14) *Reporting and notification requirements.* The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Administrator in accordance with the applicable title V operating permit program. The reports shall meet the requirements in paragraphs (aa)(14)(i) through (iii) of this section.
 - (i) *Semi-annual report.* The semi-annual report shall be submitted to the Administrator within 30 days of the end of each reporting period. This report shall contain the information required in paragraphs (aa)(14)(i)(a) through (g) of this section.
 - (a) The identification of owner and operator and the permit number.
 - (b) Total annual emissions (expressed on a mass-basis in tons per year, or expressed in tons per year CO₂e) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph (aa)(13)(i) of this section.
 - (c) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
 - (d) A list of any emissions units modified or added to the major stationary source or GHG-only source during the preceding 6-month period.
 - (e) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
 - (f) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by (aa)(12)(vii).
 - (g) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
 - (ii) *Deviation report.* The major stationary source or GHG-only source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of this chapter. The reports shall contain the following information:
 - (a) The identification of owner and operator and the permit number;
 - (b) The PAL requirement that experienced the deviation or that was exceeded;
 - (c) Emissions resulting from the deviation or the exceedance; and
 - (d) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
 - (iii) *Re-validation results.* The owner or operator shall submit to the Administrator the results of any re-validation test or method within 3 months after completion of such test or method.
- (15) Transition requirements.

- (i) The Administrator may not issue a PAL that does not comply with the requirements in paragraphs (aa)(1) through (15) of this section after March 3, 2003.
 - (ii) The Administrator may supersede any PAL that was established prior to March 3, 2003 with a PAL that complies with the requirements of paragraphs (aa)(1) through (15) of this section.
- (bb) If any provision of this section, or the application of such provision to any person or circumstance, is held invalid, the remainder of this section, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.
- (cc) Without regard to other considerations, routine maintenance, repair and replacement includes, but is not limited to, the replacement of any component of a process unit with an identical or functionally equivalent component(s), and maintenance and repair activities that are part of the replacement activity, provided that all of the requirements in paragraphs (cc)(1) through (3) of this section are met.
- (1) Capital cost threshold for equipment replacement.
 - (i) For an *electric utility steam generating unit*, as defined in §52.21(b)(31), the fixed capital cost of the replacement component(s) plus the cost of any associated maintenance and repair activities that are part of the replacement shall not exceed 20 percent of the replacement value of the process unit, at the time the equipment is replaced. For a process unit that is not an electric utility steam generating unit the fixed capital cost of the replacement component(s) plus the cost of any associated maintenance and repair activities that are part of the replacement shall not exceed 20 percent of the replacement value of the process unit, at the time the equipment is replaced.
 - (ii) In determining the replacement value of the process unit; and, except as otherwise allowed under paragraph (cc)(1)(iii) of this section, the owner or operator shall determine the replacement value of the process unit on an estimate of the fixed capital cost of constructing a new process unit, or on the current appraised value of the process unit.
 - (iii) As an alternative to paragraph (cc)(1)(ii) of this section for determining the replacement value of a process unit, an owner or operator may choose to use insurance value (where the insurance value covers only complete replacement), investment value adjusted for inflation, or another accounting procedure if such procedure is based on Generally Accepted Accounting Principles, provided that the owner or operator sends a notice to the reviewing authority. The first time that an owner or operator submits such a notice for a particular process unit, the notice may be submitted at any time, but any subsequent notice for that process unit may be submitted only at the beginning of the process unit's fiscal year. Unless the owner or operator submits a notice to the reviewing authority, then paragraph (cc)(1)(ii) of this section will be used to establish the replacement value of the process unit. Once the owner or operator submits a notice to use an alternative accounting procedure, the owner or operator must continue to use that procedure for the entire fiscal year for that process unit. In subsequent fiscal years, the owner or operator must continue to use this selected procedure unless and until the owner or operator sends another notice to the reviewing authority selecting another procedure consistent with this paragraph or paragraph (cc)(1)(ii) of this section at the beginning of such fiscal year.
 - (2) *Basic design parameters.* The replacement does not change the basic design parameter(s) of the process unit to which the activity pertains.
 - (i) Except as provided in paragraph (cc)(2)(iii) of this section, for a process unit at a steam electric generating facility, the owner or operator may select as its basic design parameters either maximum hourly heat input and maximum hourly fuel consumption rate or maximum hourly electric output rate and maximum steam flow rate. When establishing fuel consumption specifications in terms of weight or volume, the minimum fuel quality based on British Thermal Units content shall be used for determining the basic design parameter(s) for a coal-fired electric utility steam generating unit.
 - (ii) Except as provided in paragraph (cc)(2)(iii) of this section, the basic design parameter(s) for any process unit that is not at a steam electric generating facility are maximum rate of fuel or heat input, maximum rate of material input, or maximum rate of product output. Combustion process units will

typically use maximum rate of fuel input. For sources having multiple end products and raw materials, the owner or operator should consider the primary product or primary raw material when selecting a basic design parameter.

- (iii) If the owner or operator believes the basic design parameter(s) in paragraphs (cc)(2)(i) and (ii) of this section is not appropriate for a specific industry or type of process unit, the owner or operator may propose to the reviewing authority an alternative basic design parameter(s) for the source's process unit(s). If the reviewing authority approves of the use of an alternative basic design parameter(s), the reviewing authority shall issue a permit that is legally enforceable that records such basic design parameter(s) and requires the owner or operator to comply with such parameter(s).
 - (iv) The owner or operator shall use credible information, such as results of historic maximum capability tests, design information from the manufacturer, or engineering calculations, in establishing the magnitude of the basic design parameter(s) specified in paragraphs (cc)(2)(i) and (ii) of this section.
 - (v) If design information is not available for a process unit, then the owner or operator shall determine the process unit's basic design parameter(s) using the maximum value achieved by the process unit in the five-year period immediately preceding the planned activity.
 - (vi) Efficiency of a process unit is not a basic design parameter.
- (3) The replacement activity shall not cause the process unit to exceed any emission limitation, or operational limitation that has the effect of constraining emissions, that applies to the process unit and that is legally enforceable.

NOTE TO PARAGRAPH (cc): By a court order on December 24, 2003, this paragraph (cc) is stayed indefinitely. The stayed provisions will become effective immediately if the court terminates the stay. At that time, EPA will publish a document in the FEDERAL REGISTER advising the public of the termination of the stay.

[43 FR 26403, June 19, 1978]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §52.21, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

EFFECTIVE DATE NOTE: At 76 FR 17556, Mar. 30, 2011, §52.21(b)(2)(v) and (b)(3)(iii)(c) were stayed indefinitely.