

STATE OF CONNECTICUT

Regulation of Environmental Protection

Section: 3

The Regulations of Connecticut State Agencies are amended by adding a new Section 22a-174-3a as follows:

Section 22a-174-3a. Permit to Construct and Operate Stationary Sources

(a) Applicability and Exemptions

- (1) Applicability. Prior to beginning actual construction of any stationary source or modification not otherwise exempted in accordance with subdivision (2) (A) to (C) of this subsection, the owner or operator shall apply for and obtain a permit to construct and operate under this section for any:
 - (A) New major stationary source;
 - (B) Major modification;
 - (C) * * *
 - (D) New emission unit with potential emissions of fifteen (15) tons or more per year of any individual air pollutant;
 - (E) Modification to an existing emission unit which increases potential emissions of any individual air pollutant from such unit by fifteen (15) tons or more per year; or
 - (F) Stationary source or modification that 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.
 - (G) * * *

Note – EPA did not incorporate-by-reference section 22a-174-3a (a)(1)(C).

Note – EPA did not incorporate-by-reference section 22a-174-3a (a)(1)(G).

- (H) New stationary source that emits, or has the potential to emit, equal to or greater than 100,000 tons per year of CO₂e and one hundred (100) tons per year of greenhouse gases;
 - (I) Major stationary source when such major stationary source undertakes a physical change or change in the method of operation that will result in a net emissions increase that is equal to or greater than 75,000 tons per year CO₂e; or
 - (J) Stationary source that emits, or has the potential to emit, equal to or greater than 100,000 tons per year of CO₂e and one hundred (100) tons per year of greenhouse gases, when such stationary source undertakes a physical change or change in the method of operation that will result in a net emissions increase that is equal to or greater than 75,000 tons per year CO₂e.
- (2) Exemptions. Notwithstanding the provisions of subdivision (1) of this subsection, the owner or operator of a stationary source or modification may conduct activities listed in subdivision (2) (A), and may construct or operate the sources listed in subdivision (2) (B) and (2)(C) of this section, without a permit under this section:
- (A) Any activity that:
- (i) adds air pollution control equipment or implements process changes to control air pollution unless the addition or implementation results in an increase in actual emissions of any individual air pollutant of fifteen (15) tons or more per year, or ten (10) tons or more per year of a hazardous air pollutant subject to the provisions of subsection (m) of this section,
 - (ii) relocates a portable rock crusher which is subject to a permit or exemption letter issued by the commissioner pursuant to former section 22a-174-3 Regulations of Connecticut State Agencies, or which is registered under a general permit for such sources issued by the commissioner pursuant to section 22a -74(1) of the Connecticut General Statutes, provided the owner or operator is in compliance with any such permits and provides written notice to the commissioner prior to such relocation,
 - (iii) constitutes a conversion from fuel oil to natural gas, or in addition to fuel oil, provided such conversion does not increase actual emissions of any individual air pollutant by fifteen (15) tons or more per year, unless such conversion results in reconstruction; or
 - (iv) constitutes a conversion from residual fuel oil to distillate fuel oil, or in addition to residual fuel oil, provided such conversion does not increase actual emissions

of any individual air pollutant by fifteen (15) tons or more per year, unless such conversion results in reconstruction.

(B) Any stationary source that is:

- (i) registered under and is in compliance with any new source review general permit to construct and operate a new or existing stationary source issued pursuant to section 22a-174(1) of the Connecticut General Statutes,
- (ii) a stripping facility used to remove VOC from contaminated groundwater or soil pursuant to an order issued by the commissioner, provided such facility has a control device with VOC removal efficiency of at least ninety-five percent (95%),
- (iii) a portable engine or boiler temporarily replacing an existing engine or boiler, provided the replacement units have a combined emission rate equal to or less than the existing units and that the number of days total that any and all such portable engines or boilers may be used does not exceed ninety (90) days in any calendar year, or
- (iv) in compliance with section 22a-174-3b or Section 22a-174-3c of the Regulations of Connecticut State Agencies, unless otherwise subject to this section pursuant to subdivision (7) of this subsection;

(C) Any:

- (i) mobile source, or
- (ii) non-road engine as defined in 40 CFR Part 89.

(3) In determining the applicability of subsections (k) or (l) of this section, the owner or operator may determine the net emissions increase. However, the net emissions increase shall not be used determining the applicability of:

(A) This section to any minor source or modification thereof; or

(B) Subsection (j) of this section.

(4) This section and section 22a-174-2a of the Regulations of Connecticut State Agencies shall apply to any stationary source or modification for which a permit application pursuant to former section 22a-174-3 of the Regulations of Connecticut State Agencies was filed prior to the effective date of this section, and for which a permit has yet to be issued or denied.

- (5) Any permit modification or permit revision to a permit issued under this section shall be made as required in, and in accordance with, the provisions of this section and section 22a-174-2a of the Regulations of Connecticut State Agencies.
- (6) Pursuant to the de minimis rule under section 182 (c) (6) and (f) of the Act, the owner or operator of a major stationary source shall make and keep records of actual VOC and NOx emission increases and decreases at such source, resulting from any physical change in, or change in the method of operation of a stationary source. Such increases shall include emission increases below fifteen (15) tons per year of any individual air pollutant.
- (7) To determine if the net emission increase of a modification exceeds the major source threshold levels and is subject to subsection (k) of this section, the owner or operator shall make and keep records of actual emissions increases and decreases including those below fifteen (15) tons per year, over the five (5) consecutive calendar years preceding the completion of construction.
- (8) Any permit issued pursuant to former section 22a-174-3 of the Regulations of Connecticut State Agencies shall remain in full force and effect, in accordance with Section 22a-174-2a(i) of the Regulations of Connecticut Agencies, unless otherwise determined by the commissioner.

(b) Authorized activities prior to permit issuance

- (1) The owner or operator of a stationary source or modification who is required to obtain a permit or non-minor permit modification under the provisions of this section may, prior to obtaining such permit:
 - (A) Enter into binding agreements or contractual obligations to undertake construction of the proposed stationary source or modification for which a permit is required; and
 - (B) Begin site clearing activities.
- (2) The owner or operator of a stationary source or modification who must obtain a permit or non-minor permit modification under the provisions of this section, shall not begin actual construction before permit issuance. Such construction activities include, but are not limited to, the following activities which are specifically required for construction of the proposed stationary source or modification:
 - (A) Excavating, blasting, removing rock and soil; or
 - (B) Installing footings, foundations, retaining walls, or permanent storage structures.

(c) Applications

- (1) The owner or operator of a stationary source or modification subject to the provisions of this section shall apply for a permit on forms prescribed by the commissioner. All permit applications shall include:
 - (A) An executive summary and all other information required by section 22a-3a-5 of the Regulations of Connecticut State Agencies. The executive summary shall summarize the information contained in the application;
 - (B) Background information, including, but not limited to, the address of the premises, the legal name and business address of the applicant and of the applicant's agent for service of process and, if the applicant is not the owner of the subject source, the legal name and business address of such owner and of the owner's agent for service of process, the names and telephone numbers of the plant or site manager and any other individual, such as an engineer or consultant, designated by the owner or operator to answer questions pertaining to such application, including but not limited to, the siting of the subject stationary source or modification;
 - (C) The premises' site plan, including: a linear scale and north arrow, the plot plans depicting existing and proposed building locations, the legal boundaries of the property, stack locations, location of the subject stationary source or modification on the premises, and a United States Geological Survey topographic quadrangle map identifying the latitude and longitude of the subject stationary source or modification; and to the extent the commissioner deems it necessary, building dimensions and final grade elevations for all structures located on the premises;
 - (D) Technical information, including, but not limited to:
 - (i) descriptions of equipment, processes, air pollution control equipment, stack, fuels, process materials to be used, and process flow diagrams,
 - (ii) a completed pre-inspection questionnaire, if requested by the commissioner, which describes the equipment, processes and materials used,
 - (iii) the type, size, and efficiency of control equipment, and
 - (iv) the date, or proposed date, for commencement of construction of the subject stationary source or modification;
 - (E) The rate of emissions for individual air pollutants from the subject stationary source or modification. To calculate the rate of emissions, the owner or operator shall use data from one or more of the following, unless the commissioner determines otherwise:

- (i) a continuous monitoring system which has been certified by the commissioner, provided that such data may be taken from a source similar to that for which a permit is sought,
 - (ii) stack testing data, provided such testing was conducted in accordance with protocols preapproved by the commissioner in writing and such test was observed by department staff; and further provided that such data may be taken from a source similar to that for which a permit is sought,
 - (iii) material balances conducted by an individual with knowledge of the subject process,
 - (iv) data from the “Compilation of Air Pollutant Emission Factors (AP-42)” as published by the Environmental Protection Agency,
 - (v) a calculation submitted to the commissioner, or
 - (vi) manufacturer’s data submitted to the commissioner;
- (F) Pursuant to subsection (j) of this section, proposed best available control technology (BACT) determination, including, but not limited to, an analysis, as required by subsection (j) of this section, of the amount of emission reduction achievable through the use of BACT;
- (G) For any stationary source or modification subject to subsection (1) of this section, the proposed lowest achievable emission rate (LAER) determination, including an analysis of the proposed LAER for each air pollutant, as required by subsection (1) of this section. Such analysis shall include the amount of emission reduction achievable through the use of LAER;
- (H) * * *
- (I) If the premises is a major stationary source, for the purposes of determining compliance with subdivisions (a)(6) and (7) of this section, a summary of the potential emissions from the new subject stationary source or modification and actual emissions from existing stationary sources located at the premises over the preceding five (5) consecutive calendar years;
- (J) Compliance information pursuant to and required by section 22a-6m of the Connecticut General Statutes;

Note – EPA did not incorporate-by-reference section 22a-174-3a (c)(1)(H).

(K) Certification in accordance with section 22a-174-2a of the Regulations of Connecticut State Agencies; and

(L) All application fees required by law.

(2) The commissioner may require the owner or operator of the subject stationary source or modification to provide such additional information as the commissioner deems necessary.

(d) Standards for Granting and Renewing a Permit

(1) The commissioner may impose conditions on any permit or renewal thereof to ensure compliance with the regulations adopted pursuant to section 22a-174 of the Connecticut General Statutes and the Act.

(2) A permit or permit renewal shall not be issued unless the commissioner determines, upon evidence submitted by the owner or operator or otherwise made part of the record, that the owner or operator of the subject stationary source or modification shall comply with the applicable provisions of subdivision (3) of this subsection.

(3) Before issuance of a permit or permit modification, the owner or operator shall demonstrate, to the satisfaction of the commissioner, that, with respect to the construction and operation of the subject stationary source or modification, the owner or operator shall:

(A) Construct and operate such stationary source or modification in accordance with the permit, and operate such stationary source or modification in accordance with all applicable and relevant emission limitations, statutes, regulations, schedules for stack tests, and other order of the commissioner. In the event a conflict exists between the permit and another state or federally enforceable statute, regulation or order of the commissioner, the most stringent provision shall apply;

(B) Operate such stationary source or modification without preventing or interfering with the attainment or maintenance of any applicable ambient air quality standards or any Prevention of Significant Deterioration increments under subsection (k) of this section;

(C) Operate such stationary source or modification without preventing or interfering with the attainment or maintenance of any National Ambient Air Quality Standard in any other state and without interfering with the application of the requirements in any other state's implementation plan, adopted pursuant to section 110 of the Act;

(D) Operate such stationary source or modification in accordance with all applicable emission standards and standards of performance pursuant to 40 CFR Parts 60, 61, and 63, as may be amended from time to time;

- (E) Install:
- (i) sampling ports of a size, number and location as the commissioner may reasonably require,
 - (ii) instrumentation to monitor and record emission and other parameter data as the commissioner may require, and
 - (iii) such other sampling and testing facilities as the commissioner may require;
- (F) As the commissioner may require, conduct stack tests at the expense of such owner or operator, in accordance with subsection (e) of this section, and in accordance with permit conditions and methods prescribed by the commissioner. Such stack tests shall demonstrate, to the commissioner's satisfaction, that the requirements of each and every applicable permit or order of the commissioner for such stationary source or modification are being met and that such stationary source or modification complies with the Regulations of Connecticut State Agencies and federal requirements;
- (G) Pay all fees required by the Department within forty-five (45) days of receipt of a tentative determination of the commissioner;
- (H) Incorporate Best Available Control Technology (BACT), as directed by the commissioner, for green house gases and each air pollutant listed in Table 3a(k)-(l) of subsection (k) of this section subject to, and in accordance with, subsection (j) of this section;
- (I) Incorporate the lowest achievable emission rate (LAER), as directed by the commissioner, for each individual air pollutant subject to, and in accordance with, subsection (l) of this section;
- (J) * * *
- (K) As required by the commissioner, install monitoring equipment and perform monitoring to demonstrate compliance with any permit provision. Such monitoring may include, but not be limited to, continuous emission monitoring (CEM);
- (L) Provide the commissioner with current information regarding air pollutant emissions from such stationary source or modification, and in accordance with the commissioner's request, submit updated and current information regarding air pollutant emissions from any other stationary sources located on the applicable premises;

Note – EPA did not incorporate-by-reference section 22a-174-3a (d)(3)(J).

(M) * * *

- (N) Demonstrate that the emission limitation required of such stationary source or modification for the control of any air pollutant shall not be affected by that portion of the stack height of such stationary source or modification that exceeds good engineering practice stack height or by any other dispersion technique;
- (O) Comply with an approved operation and maintenance plan submitted pursuant to subsection (c) (2) of this section;
- (P) Have completed and submitted, on forms prescribed by the commissioner, a preinspection questionnaire, if requested to do so by the commissioner, which describes the equipment, processes and materials used;
- (Q) Make the permit available at the subject premises throughout the period that such permit is in effect; and
- (R) Comply with the applicable provisions of this section and any other applicable regulations, permits or orders of the commissioner for such stationary source or modification.

(4) An expiration date may be placed within any permit issued pursuant to this section. Any permit issued pursuant to this section or former section 22a-174-3 of the Regulations of Connecticut State Agencies containing an expiration date shall be renewed in accordance with the provisions of section 22a-174-2a(i) of the Regulations of Connecticut State Agencies.

(e) Emission Testing

- (1) The permit may require that the owner or operator conduct emission (stack) testing to assure compliance with the permit terms and conditions in accordance with this subsection and section 22a-174-5 of the Regulations of Connecticut State Agencies.
- (2) Emission tests shall be conducted in a manner acceptable to and approved by the commissioner. The owner or operator shall provide the results of any emission test in a form satisfactory to the commissioner. The commissioner shall have the opportunity to observe all emission tests or the results of any such tests may be disapproved by the commissioner.
- (3) Based upon emission test results, the commissioner may modify, revise, or revoke a permit in accordance with subsection (f) of this section.

Note – EPA did not incorporate-by-reference section 22a-174-3a (d)(3)(M).

(f) Modification, revision, or revocation of a permit

- (1) The commissioner may modify, revise, or revoke a permit in accordance with this section, section 22a-174-2a of the Regulations of Connecticut State Agencies, and sections 4182 and 22a-174c of the Connecticut General Statutes.
- (2) The commissioner shall review and may modify, revise or revoke any permit if the owner or operator:
 - (A) Has not commenced construction authorized by the permit within eighteen (18) months from the date of issuance, or such other period, as the permit provides, whichever is later;
 - (B) Has discontinued construction for eighteen (18) months or more after actual construction authorized by the permit has begun; or
 - (C) Has not commenced operation authorized by the permit within twenty-four (24) months from the completion of construction, or such other period as the permit provides, whichever is later.

(g) Non-Minor Permit Modifications, Minor Permit Modifications and Permit Revisions

- (1) Any non-minor permit modification to a permit issued pursuant to this section shall be made in accordance with subsections (d)(1), (2), (3), (5) and (6) or subsection (d)(8) of section 22a-174-2a of the Regulations of Connecticut State Agencies, respectively.
- (2) Any minor permit modification to a permit issued pursuant to this section shall be made in accordance with subsections (e)(1), (3) and (4) of section 22a- 174-2a of the Regulations of Connecticut State Agencies, respectively.
- (3) Any revision to a permit issued pursuant to this section shall be made in accordance with section 22a-174-2a(f) of the Regulations of Connecticut State Agencies.

(h) Duty to Comply

An owner or operator shall comply with the permit or modification thereto issued by the commissioner under this section.

(i) Ambient Air Quality Analysis

- (1) An application for a permit subject to this subsection, if requested to be provided pursuant to subsection (c)(2) of this section, shall contain an analysis of the effect of the pollutants listed in Table 3a(i)-(1) below. For the purposes of this subsection, the allowable emissions of an air pollutant will be deemed to have a significant impact on air quality if

such impact is greater than or equal to the amount listed for any individual air pollutant in Table 3a(i)-1 below.

Table 3a(i)-1 Ambient Impact

| AIR POLLUTANT | AMBIENT IMPACT (MICROGRAMS PER CUBIC METER) |
|---|---|
| PM _{2.5} Annual average 24-hour average | 0.3 1.2 |
| PM ₁₀ Annual average 24-hour average | 1 5 |
| Sulfur Dioxide Annual average 24-hour average 3-hour average | 1 5 25 |
| Carbon Monoxide 8-hour average 1-hour average | 500 2000 |
| Nitrogen Dioxide Annual average | 1 |
| Dioxin Annual average (as calculated according to Section 22a-174-1(29) of the Regulations of Connecticut State Agencies) (Polychlorodibenzodioxins (PCDDs)) (Polychlorodibenzofurans (PCDFs)) | (Notwithstanding above units) 0.1 picograms/m ³ |
| Lead (Pb) Three (3) month average | 0.3 |

(2) Any person who makes estimates of ambient air quality impacts shall use applicable air quality models, databases or other techniques approved by the commissioner. The commissioner may request any owner or operator to submit an ambient air quality impact analysis using applicable air quality models and modeling protocols approved by the commissioner.

(j) Best Available Control Technology (BACT)

(1) An owner or operator shall incorporate BACT for:

- (A) Potential emissions of each regulated air pollutant above the significant emission rate thresholds in Table 3a(k) -1 of subsection (k) of this section, from each major stationary source;
- (B) Potential emissions of each regulated air pollutant above the significant emission rate thresholds in Table 3a(k) -1 of subsection (k) of this section, from each major

modification. This requirement applies to each individual emission unit that is being modified as part of such major modification;

- (C) Potential emissions of fifteen (15) tons or more per year of any individual air pollutant, from each new emission unit and
 - (D) Potential emissions of fifteen (15) tons or more per year of any individual air pollutant, from a modification to each existing emission unit.
 - (E) Potential emissions of 75,000 tons or more per year of CO₂e from each new major stationary source;
 - (F) Potential emissions of 100,000 tons or more per year of CO₂e and potential emissions of one hundred (100) tons or more per year of greenhouse gases from each new stationary source and, from such a source, potential emissions of each air pollutant above the significant emission rate threshold in Table 3a(k)-1 of subsection (k) of this section;
 - (G) Potential emissions of 75,000 tons or more per year of CO₂e from each physical change or change in the method of operation of a major stationary source;
 - (H) Potential emissions of 75,000 tons or more per year of CO₂e from each physical change or change in the method of operation of a stationary source, where such stationary source:
 - (i) Emits or has the potential to emit equal to or greater than 100,000 tons per year CO₂e, and
 - (ii) Emits or has the potential to emit equal to or greater than one hundred (100) tons or more per year of greenhouse gases; or
 - (I) Potential emissions of 75,000 tons or more per year of CO₂e and potential emissions of each air pollutant above the significant emission rate thresholds in Table 3a(k)-1 of subsection (k) of this section from each physical change or change in the method of operation of a stationary source, where such stationary source:
 - (i) Emits or has the potential to emit equal to or greater than 100,000 tons per year CO₂e, and
 - (ii) Emits or has the potential to emit equal to or greater than one hundred (100) tons or more per year of greenhouse gases.
- (2) The owner or operator:

- (A) Shall make and submit to the commissioner for written approval a BACT analysis for each air pollutant subject to subdivision (1) of this subsection, including but not limited to, secondary and cumulative impacts and cost estimates of all control options, or the use of innovative technology; and
 - (B) Shall install BACT as approved by the commissioner.
- (3) The commissioner's review and written approval regarding BACT or the use of innovative technology shall be conducted prior to the issuance of the permit and prior to beginning actual construction.
- (4) Notwithstanding any permit for a new source or modification under this subsection the commissioner may require for construction projects, including phased construction projects, that the permittee resubmit for review and approval a BACT analysis if such construction or phase of construction has not commenced within the eighteen (18) months following the commissioner's approval of the current BACT determination for such construction or phase of construction.
- (5) Prior to commencing construction, including each phase of phased construction, the owner or operator may be required by the commissioner to demonstrate the adequacy of the technology used pursuant to any previous BACT determination, if such construction or phase of construction has not commenced within the eighteen (18) months following the commissioner's approval of the current BACT determination for such construction or phase of construction.
- (6) In determining whether to approve BACT, the commissioner shall:
- (A) Take into account any emission limitation, including any visible emission standard, which is achievable under any permit limitation or any stack test demonstration acceptable to the commissioner;
 - (B) Consider a previous BACT approval for a similar or a representative type of source;
 - (C) If the commissioner determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, the commissioner may prescribe a design, equipment, work practice or operational standard, or combination thereof, to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results; and
 - (D) Not preclude the establishment of an output based emission limitation as BACT provided such application of BACT improves the overall thermal efficiency of the subject source or modification.

- (7) In determining whether to approve BACT, the commissioner shall take into account energy, economic and environmental impacts, including secondary and cumulative impacts, and other costs.
- (8) In no event shall the application of BACT result in:
- (A) Emissions of any pollutant which would exceed the emission allowed by an applicable standard pursuant to 40 CFR Parts 60 and 61, and any State Implementation Plan limitation;
 - (B) The use of offsetting emission reductions to meet the commissioner's approval of BACT; or
 - (C) The use of a net emissions increase to meet the commissioner's approval of BACT.
- (9) The commissioner may allow the use of innovative technology as BACT, in accordance with 40 CFR 52.21(v), provided that "Administrator" means commissioner for the purposes of this provision. The owner or operator shall demonstrate that the proposed innovative technology will comply with 40 CFR 52.21(v), provide a net air quality benefit, and meet at least two (2) of the following criteria:
- (A) Improves the process or operation of existing equipment;
 - (B) Requires the use of new equipment or air pollution control technology;
 - (C) Reduces localized impacts of any individual air pollutant; or
 - (D) Implements principles of pollution prevention or environmental management systems.

(k) Permit Requirements for Attainment Areas: Prevention of Significant Deterioration of Air Quality (PSD) Program

- (1) The provisions of this subsection shall apply to the owner or operator of any new:
- (A) Major stationary source for each air pollutant emitted at a level equal to or greater than the threshold designated in Table 3a(k)-1 of this subsection from such new major stationary source located in an attainment area or unclassified area for such pollutant;
 - (B) Stationary source for greenhouse gases, if the source emits, or has the potential to emit, equal to or greater than 100,000 tons per year of CO₂e and one hundred (100) tons per year of greenhouse gases; or

(C) Major stationary source:

(i) For each air pollutant emitted at a level equal to or greater than the threshold designated in Table 3a(k)-1 of this subsection from such new major stationary source located in an attainment area or unclassified area for such pollutant, and

(ii) For greenhouse gases, if the source emits, or has the potential to emit, equal to or greater than 75,000 tons per year of CO₂e.

(2) The provisions of this subsection shall apply to the owner or operator of any:

(A) Major modification for each air pollutant from such major modification located in an attainment area or unclassified area for such pollutant, that has:

(i) Actual emissions that are equal to or greater than the significant emission rate thresholds in Table 3a(k)-1 of this subsection, and

(ii) A net emissions increase that is equal to or greater than the significant emission rate thresholds in Table 3a(k)-1 of this subsection;

(B) Major stationary source when such major stationary source undertakes a physical change or change in the method of operation that will result in a net emissions increase that is equal to or greater than 75,000 tons per year CO₂e; or

(C) Stationary source that emits, or has the potential to emit, equal to or greater than 100,000 tons per year of CO₂e and one hundred (100) tons per year of greenhouse gases, when such stationary source undertakes a physical change or change in the method of operation that will result in a net emissions increase that is equal to or greater than 75,000 tons per year CO₂e.

(3) Notwithstanding subdivisions (1) and (2) of this subsection, the provisions of this subsection do not apply to a major stationary source or major modification with potential emissions of nitrogen oxides of more than twenty-five (25) tons but less than forty (40) tons per year.

(4) The owner or operator of a major stationary source, major modification or stationary source subject to this subsection shall install BACT as approved by the commissioner in accordance with subsection (j) of this section.

(5) Ambient Monitoring

(A) The permit application shall contain an analysis of the effect on ambient air quality in the area of the subject source or modification, of the following pollutants:

- (i) those that have allowable emissions in excess of the amount listed in Table 3a(k)-1 of this subsection, or
 - (ii) those for which an ambient air quality standard exists;
- (B) For any pollutant listed in Table 3a(k)-1 for which an AAQS does not exist, the analysis shall contain such air quality monitoring data as the commissioner determines is necessary to assess ambient air quality for that pollutant in any area that such pollutant may affect;
- (C) For any pollutant for which an AAQS exists, the analysis shall contain air quality monitoring data approved by the commissioner and gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of such standard or a Prevention of Significant Deterioration increment listed in Table 3a(k)-2 of this subsection:
- (D) The air quality monitoring data that is required by subparagraphs (B) and (C) of this subdivision shall have been gathered over a period of one (1) year and shall represent the year preceding receipt of the application, unless the commissioner determines in writing that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one (1) year, but not to be less than four (4) months;
- (E) The owner or operator shall, after construction of the subject source or modification, conduct such ambient monitoring as the commissioner determines is necessary to determine the effect which the emissions from such source or modification, may have, or are having, on air quality in any area. In addition, the owner or operator shall submit the results of such ambient monitoring to the commissioner within thirty (30) days of data collection; and
- (F) The owner or operator shall meet the requirements of 40 CFR 58, Appendix A during the operation of monitoring.
- (6) Source Impact Analysis.
- (A) The owner or operator of the subject source or modification which will have an impact on air quality equal to or greater than any amount listed in Table 3a(i)-1 of subsection (i) of this section shall not cause or contribute to air pollution in violation of the National Ambient Air Quality Standards or any applicable maximum allowable increase above baseline concentration established in Table 3a(k)-2 of this subsection;
- (B) Compliance with the requirements of this subsection shall be determined using the Department's air emissions inventory and the Prevention of Significant Deterioration increments listed in Table 3a(k)-2 of this subsection;

(C) A permit application for the subject source or modification shall include a calculation of the increase, above the baseline concentration, in ambient concentrations of pollutants to be expected from the new major stationary source or major modification. Such calculation shall be based on:

- (i) the allowable emissions from the subject source or modification,
- (ii) the actual emissions from all major stationary sources which were required to obtain a permit after the major source baseline date,
- (iii) the increased actual emissions from all modifications to the major stationary source which were required to be permitted after the major source baseline date and before the minor source baseline date. The owner or operator shall use allowable emissions instead of actual emissions if such modifications are located on the owner's or operator's premises,
- (iv) the actual emissions from all stationary sources, other than major stationary sources, which were required to obtain a permit after the minor source baseline date,
- (v) the allowable emissions for any stationary source for which a permit is pending and for which the commissioner has made a determination of application sufficiency, and
- (vi) the reductions, occurring on or after the minor source baseline date, in actual emissions and federally enforceable allowable emissions from stationary sources located in the baseline area;

(D) When determining the increase over the baseline concentration of criteria air pollutant emissions from the subject major stationary source or major modification, the commissioner may consider any proposed reductions in actual emissions and allowable emissions which will occur prior to the commencement of operation of the subject major stationary source or major modification, provided such reductions become enforceable.

(7) A permit application for the subject source or modification shall contain an analysis, in accordance with subsection (i) of this section, of the effect of the pollutants listed in Table 3a(k)-1.

Table 3a(k)-1 Significant Emission Rate Thresholds

| AIR POLLUTANT | EMISSION LEVELS (TONS PER YEAR) |
|--|------------------------------------|
| Carbon Monoxide | 100 |
| Nitrogen Oxides (as an ozone precursor) | 25 |
| Nitrogen Oxides (PM _{2.5} precursor) | 40 |
| Nitrogen Oxides (NO _x National Ambient Air Quality Standard) | 40 |
| Sulfur Dioxide (as a PM _{2.5} precursor) | 40 |
| Sulfur Dioxide (SO ₂ National Ambient Air Quality Standard) | 40 |
| Particulate Matter | 25 |
| PM _{2.5} | 10 |
| PM ₁₀ | 15 |
| Volatile Organic Compounds | 25 |
| Hydrogen Sulfide (H ₂ S) | 10 |
| Total Reduced Sulfur (including H ₂ S) | 10 |
| Reduced Sulfur Compounds (including H ₂ S) | 10 |
| Sulfuric Acid Mist | 7 |
| Fluorides | 3 |
| Lead | 0.6 |
| Mercury | 0.1 |
| Municipal Waste Combustor Organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans) | 3.5 x 10 ⁻⁶ |
| Municipal Waste Combustor Metals (Measured as particulate matter) | 15 |
| Municipal Waste Combustor Acid Gases (Measured as sulfur dioxide and hydrogen chloride) | 40 |

Table 3a(k)-2 Maximum Allowable Increase above Baseline Concentration

| Air Pollutant | PSD Increment (ug/m ³) |
|---|------------------------------------|
| PM _{2.5} | |
| Annual Arithmetic Mean | 4 |
| 24-Hour Average | 9 |
| Particulate Matter, as PM ₁₀ | |
| Annual Arithmetic Mean | 17 |
| 24-Hour Average | 30 |
| Sulfur Dioxide | |
| Annual Arithmetic Mean | 20 |
| 24-Hour Average | 91 |
| 3-Hour Average | 512 |
| Nitrogen Dioxide | |
| Annual Arithmetic Mean | 25 |

(8) Additional Source Information.

(A) The owner or operator of the subject source or modification shall include in the application:

- (i) an analysis of the impairment to visibility, soils, and vegetation that would result from construction and operation of the subject source or modification, and an analysis of the general commercial, residential, industrial and other associated

growth. The owner or operator need not provide an analysis of the impact on vegetation having no significant commercial or residential value,

- (ii) an analysis, based upon methods approved by the commissioner in writing, of the ambient air quality impact projected for the area as a result of the general commercial, residential, industrial, and other growth associated with the subject source or modification,
 - (iii) a description of the nature, location, design capacity and typical operating schedule of the subject source or modification, including specifications and drawings showing its design and plant layout,
 - (iv) a schedule for construction of the subject source or modification.
 - (v) a detailed description as to what system of continuous emission reduction is planned for the subject source or modification, emission estimates, or any other information necessary to demonstrate to the commissioner that BACT will be applied, and
 - (vi) any other information deemed necessary by the commissioner to perform any analysis or make any determination under this subsection;
- (B) Upon the commissioner's request, the owner or operator of the subject source or modification shall submit:
- (i) the ambient air quality impact of the subject source or modification, including meteorological and topographical data necessary to estimate such impact, and
 - (ii) the ambient air quality impacts and the nature and extent of the general commercial, residential, industrial and other growth which have or has occurred since August 7, 1977 in the area the subject source or modification will affect.
- (9) Additional Public Participation Requirements. In addition to the public participation requirements of section 22a-174-2a of the Regulations of Connecticut State Agencies:
- (A) The commissioner shall include in the notice of tentative determination published pursuant to section 22a-174-2a of the Regulations of Connecticut State Agencies and section 22a-6h of the Connecticut General Statutes, notice of opportunity for public comment at a public hearing, if one is requested, the opportunity to submit written comment; the degree of Prevention of Significant Deterioration increment consumption that is expected if the proposed activity is permitted, and any other information the commissioner deems appropriate; and
 - (B) The owner or operator of the subject source or modification shall send a copy of the notice required pursuant to subparagraph (A) of this subdivision to those individuals

or entities listed under subsection (b)(5), as specified in subsection (b)(6), of section 22a174-2a of the Regulations of Connecticut State Agencies.

(l) Permit Requirements For Non-attainment Areas

(1) Applicability. In accordance with subsection (a) of this section, the provisions of this subsection shall apply to the owner or operator of:

(A) Any new major stationary source that:

(i) Is or will be constructed in a designated non-attainment area; and

(ii) Is or will be major for the pollutant for which the area is designated as nonattainment;

(B) Any major modification that:

(i) Occurs at a source that is major for the pollutant for which the area is designated as nonattainment; or

(ii) Is or will be major for the pollutant for which the area is designated as nonattainment; or

(C) Any new major stationary source or major modification that is located in an attainment area or unclassifiable area, where the allowable emissions of any air pollutant would cause or exacerbate a violation of a National Ambient Air Quality standard in an adjacent nonattainment area. Allowable emissions of any such air pollutant shall be deemed not to cause or contribute to a violation of a National Ambient Air Quality Standard provided that such emissions result in impacts that are less than levels set forth in Table 3a(i)-1 in subsection (i) of this section.

(2) Analysis of alternatives.

(A) An owner or operator of the subject source or modification shall include an analysis of alternative sites for the proposed activity, alternative sizes for the subject source or modification, alternative production processes, and all environmental control techniques and technologies which are available for such major stationary source or major modification;

(B) Such analysis shall demonstrate whether the benefits of the subject source or modification would significantly outweigh its adverse environmental impacts, including secondary impacts and cumulative impacts, and social costs imposed as a result of the location, construction or modification;

- (C) The owner or operator of the subject source or modification shall submit such analysis prior to the issuance of any tentative determination on a permit application under this section.

(3) Control Technology Review and Approval.

- (A) An owner or operator of the subject source or modification shall submit, for approval in writing:
 - (i) a LAER determination for each non-attainment air pollutant for which the subject source is a new major modification or new major stationary source, and
 - (ii) a LAER determination for each air pollutant which would cause or contribute to a violation of a National Ambient Air Quality Standard in an adjacent non-attainment area.
- (B) In determining whether to approve LAER, the commissioner may take into account any emission limitation, including a visible emission limit. The commissioner may disregard any emissions test on a pilot plant or prototype equipment which does not have reasonable operating experience or which may not be generally available for industry use;
- (C) In determining whether to approve LAER, the commissioner may take into account an output based emission limitation as LAER provided such application of LAER improves the overall thermal efficiency of the subject source or modification;
- (D) The owner or operator of the subject source or modification shall not be granted a permit under this section unless and until the commissioner determines that such owner or operator will install air pollution control technology which complies with the commissioner's approval of LAER for each non-attainment air pollutant;
- (E) If the owner or operator of the subject source or modification has made modifications to the subject source or modification and any of these modifications are subject to but have not previously been evaluated under this subsection, the commissioner shall conduct a LAER review under this subsection and require implementation of LAER for such modifications;
- (F) In no event shall the application of LAER result in an emission limit or rate of emissions that is less stringent or environmentally protective than an emission limitation approved by the commissioner as BACT, an emission limitation demonstrated or established in any State Implementation Plan or any applicable limitation or standard pursuant to 40 CFR Parts 60, 61, 62 or 63; and
- (G) An owner or operator of the subject source or modification shall submit, for approval in writing an evaluation of secondary impacts or cumulative impacts for

each nonattainment air pollutant with potential emissions in excess of the amount listed in Table 3a(k)-I of subsection (k).

(4) Offsetting emission reductions or Emission Reduction Credits

(A) Except as provided in subdivision (8)(B) of this subsection, prior to commencing operation pursuant to a permit issued under this section, the owner or operator of the subject source or modification shall:

- (i) reduce actual emissions from other stationary sources on such premises, sufficient to offset the allowable emissions increase for each individual nonattainment air pollutant which is the subject of the application, or
- (ii) obtain certified emission reduction credits in accordance with subdivision (5) of this subsection, which credits are sufficient to offset the allowable emissions increase for each individual nonattainment air pollutant; and

(B) The commissioner shall not grant a permit to an owner or operator of the subject source or modification unless the owner or operator demonstrates that internal offset or certified emission reduction credits pursuant to subparagraph (A) of this subdivision:

- (i) have occurred preceding the submission of such application and prior to the date that the subject source or modification becomes operational and begins to emit any air pollutant. The commissioner may consider a time period beginning no earlier than November 15, 1990,
- (ii) are not otherwise required by any of the following: the Act; a federally enforceable permit or order; the State Implementation Plan; or the regulations or statutes in effect when such application is filed,
- (iii) will be incorporated into a permit or order of the commissioner and would be federally enforceable,
- (iv) will create a net air quality benefit in conjunction with the proposed emissions increase. In determining whether such a net air quality benefit would be created, the commissioner may consider emissions on an hourly, daily, seasonal or annual basis. For carbon monoxide or particulate matter (total suspended particulate, PM_{2.5} and PM₁₀), the net air quality benefits shall be determined by the use of atmospheric modeling procedures approved by the commissioner and the Administrator in writing. Upon the request of the commissioner, the owner or operator shall make and submit to the commissioner, a net air quality benefit determination for each air pollutant. Such determination shall include, but not be limited to, all increases and

decreases of emissions from stationary sources at any premises providing the offsetting emission reductions,

- (v) shall be based on the pounds per hour of potential emissions increase from the subject source or modification. The commissioner may consider other more representative periods, including, but not limited to, tons per year or pounds per day,
 - (vi) are identified in an emissions inventory maintained by the commissioner or otherwise approved in writing by the commissioner,
 - (vii) are of the same non-attainment air pollutant of which the owner or operator proposes to increase. Reductions of any exempt volatile organic compound listed in Table 1-3 of section 22a-174-1 of the Regulations of Connecticut State Agencies or those listed in 40 CFR 51.100 shall not be used to offset proposed increases emissions of non-exempt volatile organic compounds,
 - (viii) occurred at either: one or more stationary sources in the same non-attainment area or stationary sources in another non-attainment area if, pursuant to the Act, such area has an equal or higher nonattainment classification than the area in which the proposed activity would take place, and if emissions from such other nonattainment area contribute to a violation of a National Ambient Air Quality Standard in the nonattainment area in which the proposed activity would take place,
 - (ix) for the applicable non-attainment air pollutant, shall be from reductions in actual emissions, and
 - (x) offset actual emissions at a ratio greater than one to one, as determined by the commissioner. In addition, the owner or operator shall offset emission increases of allowable emissions at a ratio, for volatile organic compounds or nitrogen oxides, of at least: 1.3 to 1 in any severe non-attainment area for ozone, and 1.2 to 1 in any serious non-attainment area for ozone.
- (5) The owner or operator of the subject source or modification shall secure certified emission reduction credits before using them. Continuous emission reduction credits shall be secured and retired prior to their use. Emission reduction credits shall be:
- (A) Created and used in accordance with 40 CFR 51;
 - (B) Real, that is, resulting in a reduction of actual emissions, net of any consequential increase in actual emissions resulting from shifting demand. The emission reductions shall be measured, recorded and reported to the commissioner;

- (C) Quantifiable, based on either stack testing approved by the commissioner in writing, conducted pursuant to an appropriate, reliable, and replicable protocol approved by the commissioner, or continuous emissions monitoring certified by the commissioner. Such quantification shall be in terms of the rate and total mass amount of non-attainment pollutant emission reduction;
- (D) Surplus, not required by any Connecticut General Statute or regulation adopted thereunder, or mandated by the State Implementation Plan, and not currently relied upon for any attainment plan, any Reasonable Further Progress plan or milestone demonstration;
- (E) Permanent, in that at the source of the emission reduction, the emission reduction system shall be in place and operating, and an appropriate record keeping system is maintained to collect and record the data required to verify and quantify such emissions reductions; and
- (F) Enforceable and approved by the commissioner in writing after the submission to the commissioner of documents satisfactory to the commissioner or incorporated into a permit as a restriction on emissions.

(6) Compliance Requirements.

- (A) The owner or operator of the subject source or modification shall demonstrate that all stationary sources owned, operated or controlled by the owner, operator, applicant, permittee and any parent company or subsidiary thereof are in compliance with all environmental protection laws or are on a federally enforceable schedule for achieving such compliance; and
- (B) The owner or operator of the subject source or modification shall demonstrate that compliance with any enforcement orders for stationary sources in Connecticut owned, operated or controlled by the owner, operator, applicant, or permittee are on the most expeditious compliance schedule practicable.

(7) Public Notice. The notice of tentative determination pursuant to section 22a- 6h of the Connecticut General Statutes shall include any information concerning the proposal by the owner or operator to offset the potential emissions increase from the subject source or modification and the commissioner's approval of LAER.

(8) Notwithstanding any provision of this section:

- (A) No permit shall be granted under this subsection if the Administrator has made a final determination that the applicable implementation plan is not being implemented for the nonattainment area in which the subject source or modification is to be located; and

(B) Pursuant to section 173(a)(1)(B) of the Act, the owner or operator of any new major stationary source or major modification which is located in a zone within the nonattainment area, which zone has been identified by the Administrator, in consultation with the Secretary of Housing and Urban Development, as a zone to which economic development should be targeted, shall not be required to obtain offsetting emission reductions pursuant to this subsection unless the proposed emissions would cause or contribute to emissions levels which exceed the emissions levels allowed by the State Implementation Plan.

(m) * * *

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Note – EPA did not incorporate-by-reference section 22a-174-3a (m)(1) through (8).