

TITLE 7 NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DELAWARE ADMINISTRATIVE CODE

1100 Air Quality Management Section

1125 Requirements for Preconstruction Review

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**Preamble:**

This revision significantly changes Delaware's non-attainment and attainment major new source review programs, particularly as those programs apply to modified units.

- o For new and existing major stationary sources, relative to criteria pollutants, the complex netting and major modification applicability provisions of the regulation have been replaced with an administratively simple facility-wide emissions limit (FEL). No other applicability mechanisms exist for modifications to sources regulated under the FEL provisions.
- o Major stationary sources, relative to regulated NSR pollutants other than criteria pollutants, are regulated (for modifications) under the EPA NSR regulations shown at 40 CFR 51.165 for attainment areas and 40 CFR 51.166 for non-attainment areas, or at their option they may elect to be regulated under the FEL provisions for these pollutants..

In summary, each major stationary source existing on the effective date of this regulation that is subject to the FEL provisions shall determine and recommend to the Department their FEL(s) using the procedures in Section 4.0 of this regulation. This FEL shall be approved or modified and approved by the Department, and shall be incorporated into the sources' Regulation No. 30 permit. The Regulation No. 30 permitting process provides for adequate opportunity for public review and comment on the proposed FEL(s). After the FEL(s) is set the source has up to four years to "accept" the FEL as the NSR applicability mechanism. During this four year transition period the source will generate an operating strategy, install appropriate controls or take other appropriate action to insure operation under the assigned FEL can be maintained. During the four-year transition period the modification provisions of the EOP or PSD (Section 6.0) apply. These provisions will sunset once all of the initial FEL's become effective. New facilities, major for any regulated NSR pollutant, will be constructed under the provisions of the federal NSR regulations which have been adopted by reference. They will have a FEL approved by the Department much in the manner described above for existing sources.

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## **1.0 General Provisions**

**1.1** Requirements of this regulation are in addition to any other requirements of the State of Delaware “Regulations Governing the Control of Air Pollution,” and any restriction or condition contained in any permit issued pursuant to Regulation Nos. 1102 or 30.

**1.2** Any emission limitation represented by lowest achievable emission rate (LAER) may be imposed by the Department pursuant to this regulation, notwithstanding any emission limit specified elsewhere in the State of Delaware “Regulations Governing the Control of Air Pollution.”

**1.3** Any emission limitation represented by best available control technology (BACT) may be imposed by the Department pursuant to this regulation, notwithstanding any emission limit specified elsewhere in the State of Delaware “Regulations Governing the Control of Air Pollution.”

**1.4** No stationary source shall be constructed unless the applicant substantiates to the Department that the source will comply with any applicable emission limit or New Source Performance Standard or Emission Standard for a Hazardous Air Pollutant as set forth in the State of Delaware “Regulations Governing the Control of Air Pollution.”

**1.5** Any stationary source that implements, for the purpose of gaining relief from any requirement of this regulation, by any physical or operational limitation on the capacity of the source to emit a pollutant, including (but not limited to) 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 and the limitation or the effect it would have on emissions is enforceable, not withstanding any emission limit specified elsewhere in the State of Delaware “Regulations Governing the Control of Air Pollution.” If a source petitions the Department for relief from any resulting limitation described above, the source is subject to review under this regulation as though construction had not yet commenced on the source or modification.

## **2.0 Definitions - For the purposes of this regulation:**

### **”Actual emissions”**

(1) “Actual emissions” means the actual rate of emissions of a regulated NSR pollutant from an emission unit, as determined in accordance with paragraphs (2) and (3) below.

(2) 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 Department shall allow the use of a period up to 10-years before the particular date 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 and shall include fugitive emissions to the extent quantifiable. Each regulated NSR pollutant shall use the same selected time period to determine “actual emissions”.

(3) For any emissions unit which has not begun normal operations on the particular date, “actual emissions” shall equal the potential to emit of the unit on that date.

### **“Allowable emissions” means**

(1) the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following;

(a) the applicable standards as set forth in Regulations 20 and 21; or,

(b) other applicable Delaware State Implementation Plan (SIP) emissions limitations, including those with a future compliance date; or,

(c) the emissions rate specified as an enforceable permit condition, including those with a future compliance date, or,

(2) in the case of calculating the emission contribution of a well-controlled emission unit to a FEL, the maximum emissions of that well-controlled emission unit that is consistent with the overall facility allowable emissions as determined in (1) above.

**“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.

**“Best available control technology” (BACT)** means an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under CAA which would be emitted from any proposed major stationary source or major modification which the Department, on a case-by-case basis, takes 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 Regulation 20 and 21. If the Department 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.

**“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

**“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:

- (1) begun, or caused to begin, a continuous program of actual on-site construction of the source, to be completed within a reasonable time; or
- (2) entered into binding agreements or contractual obligations, which cannot be canceled 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.

**“Complete”** means, in reference to an application for a permit, that the application contains all of the information necessary for processing the application. Designating an application complete for purposes of permit processing does not preclude the Department from requesting or accepting any additional information.

**“Construction”** means any physical change or change in the method of operation (including fabrication, erection, installation, demolition or modification of an emissions unit) which would result in a change in actual emissions.

**“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.

**“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).

**“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, O<sub>2</sub> or CO<sub>2</sub> concentrations), and to record average operational parameter value(s) on a continuous basis.

**“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.

**“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. For purposes of this regulation, there are two types of emissions units:

- (1) 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, and,
- (2) an existing emissions unit is any emissions unit that is not a new emissions unit.

**“Enforceable”** means any standard, requirement, limitation or condition established by an applicable federal or state regulation or specified in a permit issued or order entered thereunder, or contained in a SIP approved by the Administrator of the U.S. Environmental Protection Agency (EPA), and which can be enforced by the Department and the Administrator of the EPA.

**“Facility-wide emissions limit (FEL)”** means a facility-wide annual emission limitation, expressed in tons per year, for a particular pollutant, that is enforceable as a practical matter, and that is established pursuant to Section 4.0 of this regulation and administered through a permit issued pursuant to Regulation No. 30 of the State of Delaware “Regulations Governing the Control of Air Pollution.”

**“Fugitive emissions”** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

**“Lowest achievable emission rate” (LAER)** means , for any source, the more stringent rate of emissions based on the following:

- (1) 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
- (2) The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within or stationary source. In no event shall the application of the term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

**“Major stationary source”** means any stationary source:

- (1) That emits or has the potential to emit 25 tons per year or more of either VOC or NO<sub>x</sub>, or
- (2) Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of a 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, 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, 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;
- (3) That emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant.
- (4) A major stationary source that is major for either volatile organic compounds or nitrogen oxides shall be considered major for ozone

**“Necessary preconstruction approvals or permits”** means those permits or approvals required under Delaware air

quality control laws and regulations.

**“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 enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

**“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, O<sub>2</sub> or CO<sub>2</sub> concentrations), and calculate and record the mass emissions rate (for example, lb/hr) on a continuous basis.

**“Regulated NSR pollutant”** for purposes of this regulation, means the following:

- (1) any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the Administrator (e.g., volatile organic compounds are precursors for ozone);
- (2) any pollutant that is subject to any standard promulgated under Section 111 of the Act;
- (3) any Class I or II substance subject to a standard promulgated under or established by Title VI of the Act; or,
- (4) any pollutant that otherwise is subject to regulation under the Act; except that 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, which have not been delisted pursuant to Section 112(b)(3) of the Act, are not regulated NSR pollutants 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.

**“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 section, 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.

**“Significant”**

- (1) 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:

Carbon monoxide: 100 tons per year (TPY)

Sulfur dioxide: 40 TPY

Particulate matter: 25 TPY

Ozone: 25 TPY

Lead: 0.6 TPY

Asbestos: 0.007 TPY

Beryllium: 0.0004 TPY

Mercury: 0.1 TPY

Vinyl chloride: 1 TPY

Fluorides: 3 TPY

Sulfuric acid mist: 7 TPY

Hydrogen sulfide (H<sub>2</sub>S): 10 TPY

Total reduced sulfur (including H<sub>2</sub>S): 10 TPY

Reduced sulfur compounds (including H<sub>2</sub>S): 10 TPY

PM<sub>10</sub> particulate: 15 TPY

(2) “Significant” means, in reference to a net emissions increase or the potential of a source to emit a pollutant subject to regulation under the CAA not listed in (1) above, any emissions rate.

(3) Notwithstanding (1) above, “significant” means any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within ten kilometers of a Class I area, and have an impact on such area equal to or greater than 1 F g/m<sup>3</sup>, (24-hour average).

**“Stationary source”** means any building, structure, facility or installation which emits or may emit a regulated NSR pollutant.

**“Uncontrolled emissions unit”** means an emissions unit that has no emission abatement controls, or whose controls and/or operating performance do not meet one or more of the requirements of a well-controlled emissions unit.

**“Well-controlled emissions unit”** means, relative to a particular pollutant:

(1) an emissions unit which is controlled by emission abatement equipment installed within the preceding five years that was then determined to be BACT (for attainment area pollutants) or LAER (for non-attainment area pollutants), or

(2) an emission unit that is controlled by emission abatement equipment, no matter when installed, that reduces uncontrolled emissions of a particular pollutant from that emission unit (measured in tons per year) to a level equivalent to 85 % of what is considered as BACT (for attainment area pollutants) or LAER (for non-attainment area pollutants) at the time a determination is made, or

(3) An emission unit which is a source of volatile organic compounds (VOCs) which exhibits both a 90% capture efficiency and a 90% control efficiency, or

(4) An emission unit for which the emissions offset provisions of Regulation 1125 (previously known as Regulation No. 25) required offsets which were implemented at any time, or

(5) An emission unit that, in the Departments opinion, uses low-sulfur distillate fuel, low VOC coatings, or other pollution prevention strategies.

### **3.0 Applicability**

**3.1** Any major stationary source which:

**3.1.1.** Emits carbon monoxide (CO), lead (Pb), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), particulate matter 10 microns in diameter and below (PM<sub>10</sub>), particulate matter 2.5 microns in diameter and below (PM<sub>2.5</sub>), sulfur oxides (SO<sub>x</sub>) or volatile organic compounds (VOC) shall be subject to the requirements of Section 4.0 of this regulation, Facility-wide Emissions Limit (FEL) for each such pollutant that source has the potential to emit (PTE) in significant amounts.

**3.1.2.** Emits any regulated NSR pollutant not subject to paragraph 3.1.1. of this regulation may elect to be subject to the provisions of Section 4.0 of this regulation, Facility-wide Emissions Limit (FEL) for that pollutant(s).

**3.2** Any proposed new major stationary source and any proposed modification to a major stationary source not subject to the requirements of paragraph 3.1 of this Regulation:

**3.2.1.** Which will impact an attainment area or an unclassifiable area as designated by the U.S. Environmental Protection Agency (EPA) pursuant to Section 107 of the Clean Air Act Amendments of 1990 (CAA) shall be subject to the requirements of 40 CFR 51.166, July, 1, 2005 edition, which is herein adopted by reference.

**3.2.2.** Which will impact a non-attainment area as designated by the EPA pursuant to Section 107 of the CAA, is subject to the requirements of 40 CFR 51.165, July 1, 2005 edition, which is herein adopted by reference.

**3.2.3.** A source may be subject to attainment/unclassifiable requirements for one pollutant and to non-attainment area requirements for another pollutant, or may affect both attainment/unclassifiable areas and non-attainment areas for the same pollutant.

**3.3** Reserved.

**3.4** The requirements of 5.0 of this Regulation shall apply to any person responsible for any proposed new stationary source, which:

**3.4.1** has a potential to emit of equal to or greater than five (5) tons per year of volatile organic compounds (VOC's) or, nitrogen oxides (NO<sub>x</sub>), or sulfur dioxide (SO<sub>2</sub>) and/or sulfur trioxide (SO<sub>3</sub>) [also termed sulfur oxides (SO<sub>x</sub>)] or, fine particulate matter (PM<sub>2.5</sub>), or, in the aggregate, any of the hazardous air pollutants (HAP's) listed in Section 112(b) of the federal Clean Air Act and the construction of which,

**3.4.2** was applied for, pursuant to Regulation 1102, Section 11, after August 8, 2005, and

**3.4.3** is subject to the construction, installation, or alteration requirements of Regulation No. 1102, Section 2.1.3, and

**3.4.4** is not subject to emission control requirements of Section 3.2 or Section 6.0 of this regulation.

**3.5** Any person exempted from the requirements of Section 5.0 of this Regulation because the proposed source has emissions below the thresholds provided for in Section 3.4.1 shall include with the application submitted pursuant to Regulation No. 1102, Section 11.1, documentation that shows the proposed source is exempted.

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#### **4.0 Facility-Wide Emission Limit (FEL).**

##### **4.1. FEL Compliance Requirements**

**4.1.1** Beginning 12 months after the FEL effective date the major stationary source owner or operator shall demonstrate that the sum of the monthly emissions from all emission units under the FEL for the previous 12 consecutive months is less than the FEL (a 12-month total, rolled monthly). For each month during the first 11 months from the FEL effective date, the major stationary source owner or operator shall demonstrate that the sum of the preceding monthly emissions from the FEL effective date for all emission units under the FEL is less than the FEL.

**4.1.2** On and after a FEL(s) effective date, if a FEL is exceeded then the facility is in violation of this regulation, that facility shall correct the violation, and State and/or Federal enforcement may ensue.

##### **4.2 Establishment of a FEL(s).**

###### **4.2.1. General**

**4.2.1.1** Any major stationary source shall have a FEL established for each of the following criteria pollutants that it has the potential to emit in significant amounts; carbon monoxide (CO), lead (Pb), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), particulate matter 10 microns in diameter and below (PM<sub>10</sub>), particulate matter 2.5 microns in diameter and below (PM<sub>2.5</sub>), sulfur oxides (SO<sub>x</sub>) and volatile organic compounds (VOC).

**4.2.1.2** The FEL(s) shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the regulated NSR pollutant at the major stationary source.

**4.2.1.3** Each FEL shall regulate emissions of only one pollutant.

**4.2.2 Existing Major Stationary Sources** (major sources of a particular pollutant that first commenced operation prior to the effective date of this regulation).

**4.2.2.1** Each existing major stationary source subject to this Section shall, not later than 60 days after the effective date of this regulation, submit to the Department a proposed FEL for each subject pollutant, which should include all of the information specified in 4.2.2.1.1 through 4.2.2.1.10.

**4.2.2.1.1** A list of all emissions units at the major stationary source. In addition, the owner or operator of the major stationary source shall indicate which, if any, Federal or State applicable requirements, emission limitations or work practices apply to each unit.

**4.2.2.1.2** A declaration of whether each emissions unit is well-controlled or uncontrolled. For units declared well-controlled, include a discussion of the information upon which the well-control status was based (e.g., type of controls, when installed, capture and control effectiveness).

**4.2.2.1.3** The potential to emit of each well-controlled emissions unit and the basic data upon which the PTE calculation was based.

**4.2.2.1.4** The actual emissions from each uncontrolled emissions unit. For each pollutant each emissions unit shall use the same 24-month operating period in determining actual emissions.

**4.2.2.1.5** If applicable, a narrative describing why the selected consecutive 24-month operating period is more representative than the 24-month period immediately preceding the effective date of this regulation.

**4.2.2.1.6.** Fugitive VOCs with applicable leak detection and repair (LDAR) requirements will be handled separately from the rest of that emission unit and will be added to any facility-wide emission calculation. They will be evaluated each year, consistent with LDAR standards.

**4.2.2.1.7** A calculation showing the summation of all the potential, actual, and fugitive emissions of the facility, determined pursuant to paragraph 4.2.1.1.3, 4.2.1.4, and 4.2.2.1.6, respectively. This summation is the FEL recommendation, expressed in tons of pollutant emitted per year.

**4.2.2.1.8** 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 4.5.

**4.2.2.1.9.** Any other information the owner or operator desires the Department to consider in determining the appropriate level for the FEL

**4.2.2.1.10** A statement of intent to either operate under the determined FEL when approved by the Department, or to elect to operate under a transition period for up to 48 months before establishing the FEL as described in 4.2.2.3.2. Sources electing to be regulated under a FEL pursuant to paragraph 3.1.2. of this regulation shall not be eligible for operation under a transition period.

**4.2.2.2** Upon receipt the Department shall review the information submitted pursuant to 4.2.2.1 of this regulation and shall either propose to accept or to modify the recommended FEL. If the FEL is modified from the FEL initially proposed by the source, the source shall have 15 days in which to revise their election of a transitional period under paragraph 4.2.2.1.10 of this Section.

**4.2.2.3** The Department shall reopen for cause any facility's Regulation 30 permit and shall revise that permit to provide for the use of the FEL(s) as the Regulation 1125 applicability mechanism.

**4.2.2.3.1** The Regulation 30 permit shall, in addition to the requirements of paragraph 4.3. of this regulation, specify the date the FEL becomes effective, which shall be no later than forty-eight (48) months after the effective date of this regulation.

**4.2.2.3.2.** From the effective date of this regulation and until the FEL effective date, each facility for each FEL shall, for modifications, comply with the provisions of Section 6.0, EOP in non-attainment areas or (PSD) Prevention of Significant Deterioration in areas in attainment or unclassifiable.

**4.2.3 New Major Stationary Sources** (sources that first commenced operation as major stationary source of a particular pollutant after the effective date of this regulation)

**4.2.3.1** Each new major stationary source subject to this Section shall, as part of the associated Reg. 1102 application, or application associated with paragraph 3.2 or 3.3.1. of this regulation, submit to the Department a proposed FEL for each subject pollutant, which should include all of the information specified in 4.2.2.1. of this regulation.

**4.2.2.2** Upon receipt the Department shall review the information submitted pursuant to 4.2.3.1 of this regulation and shall either propose to accept or to modify the recommended FEL.

**4.2.2.3** The Department shall include in any ensuing Regulation No. 1102 or 1125 construction permit, and any Regulation 30 operating permit, provisions to provide for the use of the FEL(s) as the Regulation 1125 applicability mechanism. The construction and/or operating permit(s) shall, in addition to the requirements of paragraph 4.3. of this regulation, specify that the FEL provisions become effective upon commencement of operation.

**4.3. FEL Permit Provisions.** The FEL(s) shall be incorporated into the major stationary source Regulation 1102/1125 construction permit, if applicable, and Regulation No. 30 operating permit as follows:

**4.3.1.** The permit shall identify each FEL pollutant and the associated facility-wide emission limitation established pursuant to Section 4.2 of this regulation, in tons per year.

**4.3.2.** The permit shall require that each FEL level be evaluated pursuant to 4.4.1.7 of this regulation each time the Regulation No. 30 permit is renewed.

**4.3.3.** The permit shall require that emission calculations for compliance purposes shall include emissions from startups, shutdowns and fugitive emissions to the extent quantifiable.

**4.3.4.** The permit shall specify 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 4.6.1 of this regulation.

**4.3.5.** The permit shall include a requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions of 4.5 of this regulation.

**4.3.6.** The permit shall include a requirement to retain the records required under 4.6 of this regulation on site. Such records may be retained in an electronic format.

**4.3.7.** The permit shall include a requirement to submit the reports required under 4.7 of this regulation by the required deadlines.

**4.3.8** 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 permit.

**4.3.9** Where an owner or operator of an emissions unit cannot demonstrate a correlation between monitored parameter(s) and FEL pollutant emissions rate at all operating points of the emissions unit, the Department shall:

**4.3.9.1** Establish default value(s) for determining compliance with the FEL based on the highest potential emissions reasonably estimated at such operating point(s); or

**4.3.9.2** Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the FEL pollutant emissions is a violation of the FEL.

**4.3.10.** The permit shall include any other requirements that the Department deems necessary to implement and enforce the FEL.

#### **4.4. FEL Review and Revision.**

**4.4.1** The FEL(s) established pursuant to Section 4.2 of this regulation shall be reviewed and revised as follows:

**4.4.1.1** A FEL shall be revised, up or down, to correct typographical/calculation errors made in setting the FEL or to reflect a more accurate determination of emissions used to establish the FEL.

**4.4.1.2.** A FEL shall be reduced if the owner or operator of the major stationary source creates creditable emissions reductions to generate emission reduction credits under Regulation No. 34, or for use as offsets under .paragraph 3.2 or 3.3 of this regulation.

**4.4.1.3** A FEL shall be revised downward to reflect any new or revised federal or state applicable requirement(s). The Department shall specify a reduced FEL level(s) (in tons/yr) in the Regulation 30 permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Department is aware of prior to the issuance or renewal, or sooner, as applicable, of the Regulation 30 permit that implements the FEL. For example, if the owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm NO<sub>x</sub> to a new rule limit of 30 ppm, then the permit shall contain a future effective FEL level that is equal to the current FEL level reduced by half of the original baseline emissions of such unit(s). If the compliance date for a State or Federal requirement that applies to the FEL source occurs during the FEL effective period, and if the reviewing authority has not already adjusted for such requirement, the FEL shall be adjusted at the time of Regulation 30 permit renewal-

**4.4.1.4** The FEL shall be revised downward to the allowable emissions of the stationary source at any time that the FEL level exceeds the allowable emissions.

**4.4.1.5** The FEL may be revised upward by an amount equal to or less than the allowable emissions of the stationary source if the owner or operator of the stationary source submits to the Department an application that demonstrates:

**4.4.1.3.1** An increase in the FEL(s) is needed, and

**4.4.1.3.2** All significant and major emission units at the major stationary source are controlled by a minimum of BACT, or equivalent. BACT or equivalent controls shall be determined by conducting a 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, and

**4.4.1.3.3** The facility demonstrates to the Departments satisfaction that it is not economically feasible to make “headroom” by further controlling existing emission units at the facility, and

**4.4.1.3.4** The FEL increase is offset at a minimum of a 1:1 ratio for non-attainment pollutants and precursors or, for other pollutants, the air quality analysis as shown in 40 CFR 51.166 (m) (July 1, 2005 edition) is conducted to demonstrate that the increase will not cause or contribute to any NAAQS or increment exceedance.

**4.4.2.3.5.** The increased FEL level shall be effective on the day the associated Regulation 30 permit is revised.

**4.4.1.6** The FEL may be revised upward by an amount equal to or less than the allowable emissions of a new emission unit as follows:

**4.4.1.6.1** The new unit itself is treated as a new major stationary source, and complies with all of the requirements of Regulation 1125, and

**4.4.1.6.2** The FEL increase is offset at a ratio of 1.3:1 for any VOC or NO<sub>x</sub> increase, and 1:1 for any other regulated NSR pollutant increase.

**4.4.1.7** The FEL level(s) shall be reviewed/adjusted each time the associated Regulation 30 permit is renewed, as follows:

**4.4.1.7.1.** The Department shall review the FEL levels for a major stationary source, and shall provide both the proposed FEL level and a written rationale for the proposed FEL level to the public for review and comment. During such public review, any person may propose a FEL level for the source for consideration by the Department.

**4.4.1.7.2.** The Regulation 30 renewal application shall contain the information specified in paragraph 4.2 of this regulation.

**4.4.1.8.** The Department shall reduce the FEL at any time that the Department 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.

## **4.5 FEL Monitoring Requirements**

### **4.5.1. General requirements.**

**4.5.1.1.** Each Regulation 30 permit that implements a FEL(s) shall contain enforceable requirements for the monitoring system that accurately determines facility-wide emissions of the FEL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation.

**4.5.1.2.** The FEL monitoring system shall employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in 4.5.2, and shall be approved by the Department.

**4.5.1.3** Notwithstanding 4.5.1.2, a facility may also employ an alternative monitoring approach that meets the requirement of 4.5.1.1 if approved by the Department.

**4.5.2 Minimum Performance Requirements for Approved Monitoring Approaches.** The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements specified in 4.5.3 through 4.5.9:

**4.5.2.1** Mass balance calculations for activities using coatings or solvents;

**4.5.2.2** CEMS;

**4.5.2.3** CPMS or PEMS; and

**4.5.2.4** Emission Factors.

**4.5.3 Mass Balance Calculations.** An owner or operator using mass balance calculations to monitor FEL pollutant emissions from activities using coatings or solvents shall meet the following requirements:

**4.5.3.1** Provide a demonstrated means of validating the published content of the FEL pollutant that is contained in or created by all materials used in or at the emissions unit;

**4.5.3.2** Assume that the emissions unit emits all of the FEL 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

**4.5.3.3** 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 FEL pollutant emissions unless the Department determines there is site-specific data or a site-specific monitoring program to support another content within the range.

**4.5.4 CEMS.** An owner or operator using CEMS to monitor FEL pollutant emissions shall meet the following requirements:

**4.5.4.1** CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B (July 2005, herein adopted by reference); and

**4.5.4.2** CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.

**4.5.5 CPMS or PEMS.** An owner or operator using CPMS or PEMS to monitor FEL pollutant emissions shall meet the following requirements:

**4.5.5.1** The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the FEL pollutant emissions across the range of operation of the emissions unit; and

**4.5.5.2** 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.

**4.5.6 Emission factors.** An owner or operator using emission factors to monitor FEL pollutant emissions shall meet the following requirements:

**4.5.6.1** All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

**4.5.6.2** The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and

**4.5.6.3** If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate FEL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of FEL permit issuance, unless the Department determines that testing is not required.

**4.5.7 Re-validation.** Information used to establish the FEL and to demonstrate compliance with the FEL must be re-validated through performance testing or other scientifically valid means approved by the Department. Such testing must occur at least once every 5 years after issuance of the FEL.

#### **4.6 FEL Recordkeeping requirements.**

**4.6.1** The owner or operator shall retain a copy of all records necessary to determine compliance with any requirement of section 4.0 of this regulation, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.

**4.6.2** The owner or operator shall retain a copy of the following records for the duration of the FEL effective period plus 5 years:

**4.6.2.1** A copy of the permit application and any applications for revisions to the FEL; and

**4.6.2.2** Each annual certification of compliance pursuant to Title V and the data relied on in certifying the compliance.

**4.7 FEL Reporting and notification requirements.** The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Department in accordance with the requirements of Regulation No. 30. The reports shall meet the additional requirements specified in 4.7.1 through 4.7.3 of this regulation.

**4.7.1 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 4.7.1.1 through 4.7.1.7 of this section.

**4.7.1.1** The identification of owner and operator and the permit number.

**4.7.1.2** Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to 4.6.1 of this section.

**4.7.1.3** All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual FEL pollutant emissions.

**4.7.1.4** A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.

**4.7.1.5** 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.

**4.7.1.6** 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 4.3.8 of this section.

**4.7.1.7** 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.

**4.7.2 Deviation report.** The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the FEL requirements, including periods where no monitoring is available. A report submitted pursuant to Regulation 30 shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by Regulation 30. The reports shall contain the following information:

**4.7.2.1** The identification of owner and operator and the permit number;

**4.7.2.2** The FEL requirement that experienced the deviation or that was exceeded;

**4.7.2.3** Emissions resulting from the deviation or the exceedance; and

**4.7.2.4** 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.

**4.7.3 Re-validation results.** The owner or operator shall submit to the Department the results of any re-validation test or method conducted under paragraph 4.5.7 of this regulation within 30 days after completion of such test or method.

[xx/xx/06]

## **5.0 Minor New Source Review (MNSR)**

**5.1. Reserved.**

**5.2 Conditions for Approval.** Any person subject to the provisions of this Section 5.0 of this regulation shall meet the

appropriate requirements of 5.2.1 and 5.2.2:

**5.2.1** The new stationary source shall, relative to each pollutant identified in Section 3.6.1, be controlled by installing and operating emission control technology that limits emissions to the atmosphere as follows. The Department will assist in the development of appropriate emission control technology determinations if requested by the applicant.

**5.2.1.1** emission control technology that meets the LAER requirements of Section 6.4 of this Regulation, or

**5.2.1.2** emission control technology that meets the BACT requirements of Section 6.5 of this Regulation, or

**5.2.1.3** emission control technology approved in advance by the Department for the source type being constructed (a listing and description of the approved technologies is available from the Department), or

**5.2.1.4** emission control technology approved by the Department, on a case-by-case basis, pursuant to the following process:

**5.2.1.4.1** Identify and evaluate air pollution control technologies that may be applied to the source. The control alternatives need not be limited to existing controls for the source category. Consider controls applied to similar type of sources, innovative control technologies, modification of the process or process equipment, other pollution prevention measures, and combinations of these measures.

**5.2.1.4.2** List the control technologies identified in 5.2.1.4.1 in descending order of air pollution control effectiveness.

**5.2.1.4.3** Either propose the most effective technology on the list generated under 5.2.1.4.2 for approval by the Department, or demonstrate, based on the criteria in 5.2.1.4.3.1 through 5.2.1.4.3.4, that the most effective technology is infeasible or unreasonable. This process for evaluation shall be repeated relative to each emission control technology on the list generated under 5.2.1.4.2 until an emission control technology is reached that is not eliminated.

**5.2.1.4.3.1 Technological Feasibility Assessment:** A demonstration that the control technology is technically infeasible, based on physical, chemical, or engineering principles, that it is unproven technology, and/or that technical difficulties would prevent its successful application, or

**5.2.1.4.3.2 Environmental Impacts Assessment:** A demonstration that the control technology should be eliminated from consideration based on its environmental impacts. The demonstration must show that the adverse environmental effects of the control technology (for example, effects on water or land, HAP emissions, or increased environmental hazards), when compared with its air contaminant emission reduction benefits, would make use of the technology unreasonable, or

**5.2.1.4.3.3 Economic Impacts Assessment:** A demonstration that the technology should be eliminated from consideration based on its calculated economic impacts using the techniques in the latest edition of EPA's Control Cost Manual. The justification must show that the total and incremental costs of the control technology are greater than the total and incremental costs of the next less effective technology on the list generated under 5.2.1.4.2; and that the extra costs, when compared with the air contaminant emission reduction benefits resulting from the control technology, would make that measure unreasonable, or

**5.2.1.4.3.4 Energy Impacts Assessment:** A demonstration that the control technology should be eliminated from consideration based on its energy impacts. The demonstration must show that this technology uses fuels that are not reliably available; or that the energy consumed by this technology is greater than the proposed technology(s), and that the extra energy used, when compared with the air contaminant emission reduction benefits resulting from this technology, would make use of this technology unreasonable;

**5.2.2** All of the following information shall be submitted to the Department as part of the application submitted to the Department pursuant to Regulation No. 1102, Section 11.1:

**5.2.2.1** control technology proposed to be installed and operated to meet the requirements of Section 5.2.1 of this Regulation, and

**5.2.2.2** the list, if this method was chosen, generated pursuant to Section 5.2.1.4.2 of this Regulation and

**5.2.2.3** any demonstration(s) performed pursuant to Section 5.2.1.4.3 of this Regulation.

[xx/xx/06]

## **6.0 Emission Offset Provisions (EOP) and Prevention of Significant Deterioration of Air Quality (PSD)**

This section will apply to construction permits issued prior to the effective date of this regulation and for modifications to facilities existing on the effective date of this regulation that elect to operate under the transition procedure (as shown in 4.1.1.1.9) before “accepting” their FEL. It will pretty much repeat the existing Reg. 1125 Section 2 and Section 3 language. After all initial FEL’s are established the transition period no longer applies and Section 6.0 sunsets and is no longer valid.