ENVIRONMENTAL PROTECTION

AIR QUALITY, ENERGY, AND SUSTAINABILITY

DIVISION OF AIR QUALITY

Air Pollution Control

Fine Particles ($PM_{2.5}$) in Air Permitting, Sulfur (Startup/Shutdown/Malfunction (SSM) Exemption), and Emission Statements

Adopted Amendments: N.J.A.C. 7:27-7.2, 8.1, 7:27-8 Appendix 1 Table A, 18.1, 18.2, 18.4, 18.5, 18.7, 21.1, 21.3, 21.4, 21.5, 21.8, 22.1, 22.2, 22.8, and 7:27-22 Appendix Table A

Proposed: March 20, 2017, at 49 N.J.R. 515(a).

Adopted: October 10, 2017, by Bob Martin, Commissioner, Department of Environmental Protection.

Filed: October 12, 2017, as R.2017 d.198, **with non-substantial changes** not requiring additional public notice (see N.J.A.C. 1:30-6.3).

Authority: N.J.S.A. 13:1B-3.e, 13:1D-9 and 26:2C-1 et seq., in particular, 26:2C-9.2.

DEP Docket Number: 02-17-02.

Effective Date: November 6, 2017.

Operative Date: December 9, 2017.

Expiration Date: N.J.A.C. 7:27, exempt.

The Department is adopting amendments to its Air Pollution Control rules at N.J.A.C. 7:27 in order to amend the New Source Review (NSR) requirements to implement the National Ambient Air Quality Standards (NAAQS) for fine particles ($PM_{2.5}$); repeal the provision in the Sulfur rules that exempts emissions from pressure-relieving stacks or chimneys that result from

malfunctions (referred to in the rules as "abnormal emergency conditions"); amend the rules governing emissions statements to require each facility to report criteria pollutants and precursors (including $PM_{2.5}$ and ammonia) at the source level, rather than at the facility-wide level; and amend the rules governing certification and electronic submittal of emissions statements. The adopted amendments also represent a revision to New Jersey's State Implementation Plan (SIP), under the Federal Clean Air Act.

The adopted amendments to N.J.A.C. 7:27-18, Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality (Emission Offset Rules), and related amendments to the Department's permitting rules at N.J.A.C. 7:27-8, Permits and Certificates for Minor Facilities and Major Facilities without an Operating Permit, (also referred to as the preconstruction permit rules), and N.J.A.C. 7:27-22, Operating Permits (also referred to as the operating permit rules), add the Federal NSR requirements that implement the NAAQS for $PM_{2.5}$, a criteria pollutant. Existing N.J.A.C. 7:27-18 contains the Federal NSR requirements for criteria pollutants other than $PM_{2.5}$.

The amendments apply to new and modified sources, and are intended to ensure that such sources do not cause or contribute to a NAAQS violation in an attainment area, or cause or contribute to a violation of the NAAQS in a nonattainment area (such as portions of Pennsylvania). This is accomplished through various combinations of measures, including emission limits, air quality impact analyses, and use of control technologies. Under certain circumstances, a source may be required to obtain emission offsets for its $PM_{2.5}$ emissions.

In addition to amendments related to the $PM_{2.5}$ NSR requirements, the Department is adopting amendments to the Sulfur rules at N.J.A.C. 7:27-7 to delete the exemption for

emergency releases from pressure-relieving stacks to be consistent with Federal requirements, which disallow exemptions related to startup, shutdown, and malfunction (SSM) operations.

The Department is amending N.J.A.C. 7:27-21, Emissions Statements, to be consistent with the Federal Air Emissions Reporting Requirements (AERR), which require each facility to report criteria pollutants and precursors (including $PM_{2.5}$ and ammonia) at the source level, rather than at the facility-wide level, as the existing rules require. Other adopted amendments to the Emissions Statement rules affect the submission and certification of emissions statements, in order that the Department complies with the electronic security requirements of the Federal Cross-Media Electronic Reporting Rule (CROMERR).

Summary of Hearing Officer's Recommendation and Agency's Response:

The Department held a public hearing on this rulemaking and the associated State Implementation Plan (SIP) revision on May 9, 2017, at the Department's headquarters building in Trenton. Danny Wong, Bureau Chief of Evaluation and Planning, served as hearing officer. No comments, written or oral, were submitted at the hearing. After reviewing the comments received during the public comment period, the hearing officer has recommended that the Department adopt the proposed rules with the changes described below in the Summary of Agency-Initiated Changes. The Department accepts the hearing officer's recommendations. A record of the public hearing is available for inspection in accordance with applicable law by contacting:

Department of Environmental Protection

Office of Legal Affairs

ATTN: Docket No. 02-17-02

401 East State Street, 7th Floor

Mail Code 401-04L

PO Box 402

Trenton, New Jersey 08625-0402

This adoption document can also be viewed or downloaded from the Department's website at http://www.nj.gov/dep/rules/adoptions.html.

Summary of Public Comments and Agency Responses:

The Department accepted comments on the notice of proposal through May 19, 2017. One individual, Jeff Tittel of the New Jersey Sierra Club, submitted written comments. The comments received and the Department's responses are summarized below.

1. COMMENT: There are as many as five new gas power plants going online in the State, as well as half a dozen more compressor stations and pipelines. This will drive up levels of $PM_{2.5}$ and other pollution in New Jersey, so that the offset ratio in the proposed rule will be too liberal. Further, sources might not obtain these offsets since the proposed rule does not adequately define offsets.

RESPONSE: The net increase in $PM_{2.5}$ emissions, if any, from the addition of new electric generating units (EGUs) in New Jersey will not cause an exceedance of the NAAQS for $PM_{2.5}$ such that the adopted offset ratio would be too liberal or the $PM_{2.5}$ offset requirements would be triggered. The following EGUs were installed with Department approval during the past five years: PSEG Kearney Unit 13 and Unit 14 (308 megawatts (MW), 2012), Vineland Municipal

Electric Utilities Howard Down station Unit 11 (64 MW, 2012), Vineland Municipal Electric Utilities Clayville station (64 MW, 2015), Bayonne Energy Center Unit 1 (512 MW, 2012), LS Power West Deptford Unit 1 (770 MW, 2015), Newark Energy Center Unit 1 (705 MW, 2015) and Woodbridge Energy Center Woodbridge Unit 1 (663 MW, 2015). These EGUs, which combust natural gas, do emit $PM_{2.5}$, but they have replaced coal plants, which emit much higher levels of $PM_{2.5}$. In addition, when applicable, these EGUs were required to obtain $PM_{2.5}$ creditable emissions reductions (CERs), discussed below, before commencing operations. The offset rules require that the amount of emission reduction must be at least equal to the emission increase, in order to offset any increase. There are also emission reductions attributable to the shutdown of several stationary sources of emissions in the past five years. According to the Department's emission offset tracking database, these shut-down sources banked 182 tons per year of $PM_{2.5}$ CERs. There are two more EGUs under construction at the time of this adoption: PSEG Sewaren Unit 701 (585 MW, expected to begin operation in 2018) and Bayonne Energy Unit 4 (128 MW, expected to begin operation in 2020).

The addition of new compressor stations or a pipeline in New Jersey is also not expected to result in a net $PM_{2.5}$ increase that would cause an exceedance of the NAAQS for $PM_{2.5}$ because these units are intended to implement fuel switching from more polluting fuel, such as coal to the less polluting fuel, natural gas. These new major sources would be subject to the state-of-the-art (SOTA), or lowest achievable emission rate (LAER) control technology requirements in some limited circumstances, and offsets when applicable. Furthermore, any new natural gas pipeline would be required to comply with other Federal requirements during construction, including the National Environmental Policy Act (NEPA) and Federal Energy Regulatory Commission (FERC) requirements, which address environmental and other concerns,

as well as the EPA's general conformity rule requirements at 40 CFR Parts 51 and 93, which ensure that actions taken with Federal involvement conform with and do not interfere with a state's plans to attain and maintain the NAAQS.

As to the existing compressors and pipelines, owners and operators have indicated that they will comply with the recently proposed reasonably available control technology (RACT) requirements at N.J.A.C. 7:27-19.5 by replacing existing equipment with SOTA units or employing electrification, which would reduce emissions of $PM_{2.5}$ and other pollutants and ensure compliance with the adopted requirements and standards. (See 49 N.J.R. 14(a))

All New Jersey counties are in attainment of the $PM_{2.5}$ NAAQS. Accordingly, the $PM_{2.5}$ offset requirements will not be triggered unless the new or modified facility located in an attainment area proposes to emit $PM_{2.5}$ emissions that would cause a $PM_{2.5}$ NAAQS exceedance, or a new or modified facility is located near an area that is identified as nonattainment for $PM_{2.5}$ NAAQS, and that facility proposes $PM_{2.5}$ impacts above the Significant Impact Level for $PM_{2.5}$ as defined in N.J.A.C. 7:27-18, the emission offset rules.

The adopted amendments add $PM_{2.5}$ to the existing offset provisions at N.J.A.C. 7:27-18 that require an owner or operator of a proposed new major source, or an existing source undergoing major modification, located in a nonattainment area, to use CERs to offset emissions increases of any regulated pollutant. The procedure for demonstrating that the offset ratio requirement is being achieved is clearly defined at existing N.J.A.C. 7:27-18. A CER means a decrease in actual emissions that is quantifiable, verifiable, Federally enforceable, not required pursuant to any Federal or State law, rule, permit order, or other legal document, and not relied on by the Department in the SIP or any revision to the SIP. As stated in N.J.A.C. 7:27-18.5(a) and (c), only CERs may be used to offset an emission increase, and the result of the offset must

be a net air quality benefit. Such net air quality benefits can be demonstrated by using the offset ratios specified in N.J.A.C. 7:27-18.5(c) or an air quality simulation model pursuant to N.J.A.C. 7:27-18.5(e).

The adopted offset ratios are the same as the Federal requirements at 40 CFR part 51, Appendix S, Section IV.A. In determining whether the Federal offset ratios are appropriate for New Jersey, the Department relied on the technical analysis done by the EPA for developing the offset ratios. The adopted amendments at N.J.A.C. 7:27-18.5(c) establish minimum offset ratios of 1.0:1.0 for increased emissions of $PM_{2.5}$ and its precursors, oxides of nitrogen (NO_x) and sulfur dioxide (SO_2). As the 1.0:1.0 ratio indicates, the amount of emission reduction must be at least equal to the emission increase, in order to offset any increase. Thus, the offset ratio and rules will ensure that any new gas power plant, compressor station, or pipeline will not result in an increase in such air pollution, if the State becomes in nonattainment for $PM_{2.5}$ and the offset rules apply.

With regard to tracking the emission offsets, N.J.A.C. 7:27-18.8 provides that eligible applicants can bank qualified emission reductions for future use as CERs and/or trade them within the designated areas in New Jersey. The Department inspects facility records and sites to ensure that the CERs have been generated consistent with all applicable rules and requirements. With regard to whether the adopted rules adequately account for the generation and use of the emissions offsets, the existing and adopted emissions offset rules provide procedures for recording offsets and accounting for the use of the offsets in applicable projects. The Department maintains a database of CERs that contains information related to the location, source and amount of emissions reductions. The database is available at http://www.state.nj.us/dep/aqpp/bec.html.

2. COMMENT: The proposed rules lack an environmental justice component. Sources may obtain offsets in wealthier communities while other communities get the additional burden of pollution. Communities that already have serious air quality and health problems from ground level ozone, $PM_{2.5}$ and air toxins will be disproportionally affected. If a new facility opens in a community that is already overburdened, will the nearby existing facilities be forced to reduce emissions to the lowest achievable emission rate (LAER)?

RESPONSE: The Department initiated this rulemaking to bring its rules into conformance with the Federal requirements for $PM_{2.5}$ NSR, sulfur, and emission statements. As discussed in the Response to Comment 1, New Jersey is in attainment of the $PM_{2.5}$ NAAQS; therefore, there are only a few instances where offsets would be triggered. Additionally, the Response to Comment 1 explains that the adopted offset ratios are the same as the Federal requirements at 40 CFR Part 51, Appendix S, Section IV.A which, based on the EPA's technical analysis, the Department determined are appropriate for New Jersey.

The Department's existing emission offset rules include provisions to ensure that a proposed new or modified stationary source does not adversely impact air quality and public health (N.J.A.C. 7:27-18.4). The existing rules establish requirements for facilities seeking permits for emission increases to reduce emissions from existing sources (obtain emission offsets or CERs), if an increase in emissions could significantly impact air quality. These conditions ensure that new construction and modification of existing sources of air pollution do not result in increased emissions that could cause violations of ambient air quality standards in attainment areas or significantly exacerbate violation of the standards in nonattainment areas. Existing

N.J.A.C. 7:27-18.3(c)2 additionally requires the subject facilities to submit to the Department an analysis of alternative sites within New Jersey, and of alternative sizes, production processes, including pollution prevention measures, and environmental control techniques. This analysis must demonstrate that the benefits of the newly constructed, reconstructed, or modified equipment significantly outweigh the environmental and social costs imposed as a result of the location, construction, reconstruction or modification and operation of such equipment. This analysis must also include a description of the areas around the facility that will be impacted by the facility and the rationale for choosing the site for the new or modified equipment.

Early public notification and public comment are part of the process for a preconstruction permit application, pursuant to N.J.A.C. 7:27-8.10(b), and for an operating permit, pursuant to N.J.A.C. 7:27-22.11(*l*). In addition, if a facility in the Camden Waterfront South Area or the Newark Ironbound Area submits an air pollution control permit, the Department conducts early public notification, and engages in enhanced public participation, and enhanced air quality evaluation of criteria pollutants, potential health risks from air contaminants and odorous compounds. The Department also provides notification of the results of stack emission tests. The Department developed these measures based on a three-year pilot study that began in the fall of 2002, and was funded by a Community Assessment and Risk Reduction Initiative (CARRI) grant provided by the EPA. The pilot project was designed to develop tools that can be used to quickly assess air quality problems in a community, especially particulate matter and air toxics. The Waterfront South neighborhood of Camden was designated as the study area in part because of the many air quality concerns that had been raised by the residents. With assistance from New Jersey Department of Health, Camden County Health Department and Camden Community Advisory Committee, the Department prepared a final report entitled “Camden Waterfront South

Air Toxics Pilot Project, August 2005" (available at http://www.state.nj.us/dep/ej/camden/docs/finalreport.pdf). This project provided four strategies to reduce exposure to particulate matter and air toxics: stationary source emission reductions; truck emission reductions; environmental health education; and vegetation for dust suppression. In addition, the report recommended that the Department continue dialogue with the community, reduce emissions from both stationary and mobile sources, and carry out follow-up work. Although it was not the subject of the pilot project, the Newark Ironbound area has many of the same concerns as Camden Waterfront South, and its residents have also expressed air quality concerns. Accordingly, the Department also conducts early public notification, and engages in enhanced public participation, and enhanced air quality evaluation in the Newark Ironbound area.

With regard to the applicability of LAER to existing facilities, requiring LAER for existing facilities that are not being modified is not consistent with Federal requirements. An existing facility is required to reduce emissions to a LAER level only under two circumstances: when the proposed modification to an existing equipment or source operation increases emissions above the significant net emission increase levels specified in N.J.A.C. 7:27-18.7, and when a cumulative impact analysis shows an existing facility causing or contributing to a violation of a NAAQS. If that existing facility modifies a source or sources and triggers LAER applicability pursuant to existing N.J.A.C. 7:27-18.3(b)1, then it must reduce the pollutant to the LAER level. This is consistent with Federal regulations. LAER requirements are based not on the air quality of a specific community, but on whether the area generally is in attainment with the NAAQS.

3. COMMENT: One of New Jersey's biggest sources of air pollution is from cars and trucks and there has been a failure to deal with mobile sources of air pollution in the State.

RESPONSE: This rulemaking relates to controlling emissions from stationary sources. However, the Department notes that, within the Federal Clean Air Act's constraints on states' ability to control emissions from mobile sources, New Jersey has taken steps to reduce pollution from mobile sources. These include the California-certified vehicle emission standards (Cal LEV) program; vehicle inspection and maintenance programs for gasoline and diesel vehicles; mandatory retrofits on over 13,000 diesel vehicles; voluntary and required retrofits and engine replacements on nonroad construction and cargo handling equipment; anti-idling rules; support for electric vehicles with State sales tax exemption for new electric vehicles; and participation in various regional initiatives that promote regional approaches to promoting cleaner vehicles.

4. COMMENT: The State should develop a stronger standard to better address the problem of $PM_{2.5}$ in New Jersey.

RESPONSE: All counties in the State are currently in attainment for the $PM_{2.5}$ NAAQS, which the EPA is required to establish at a level that protects public health and welfare with an adequate margin of safety. In promulgating rules that include the same $PM_{2.5}$ requirements as the Federal requirements of Appendix S, the Department considered the technical analysis that the EPA included in its documentation supporting the $PM_{2.5}$ NAAQS. As stated in the Economic Impact (49 N.J.R. at 521), New Jersey has already achieved attainment of the 1997 annual 15 $\mu g/m^3$, the 2006 24-hour 35 $\mu g/m^3$, and the 12 $\mu g/m^3$ annual $PM_{2.5}$ NAAQS and has been

redesignated as in attainment. Many factors have contributed to the State's $PM_{2.5}$ attainment status, including the State's enforcement of the Federal standard in the absence of State NSR rules addressing $PM_{2.5}$. New Jersey achieved attainment of the $PM_{2.5}$ NAAQS before the projection year 2020 that EPA used in its analysis. Therefore, the Department determined a more stringent $PM_{2.5}$ standard than the Federal standard is not necessary.

Summary of Agency-Initiated Changes:

The Department is modifying the rules on adoption to correct grammar and spelling, and to update a web address, program designation, and a telephone number.

Federal Standards Statement

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), require State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis. The adopted amendments are needed to fulfill Federal requirements. None of the adopted amendments exceeds any Federal standard or requirement.

$PM_{2.5}$ New Source Review (NSR)

Federal law requires New Jersey to promulgate the Federal NSR requirements in its rules. The adopted amendments to N.J.A.C. 7:27-18 reflect, but do not go beyond, the Federal requirements in Appendix S. There are no specific Federal requirements for the minor permitting program, per se, which the Department regulates at N.J.A.C. 7:27-8. Rather, 40 CFR Part 51, Subpart I, requires the State to regulate minor sources to control air pollution and attain and maintain the NAAQS, without setting any specific standards or requirements for the

regulated entities. Thus, for minor sources, there is no comparable Federal standard exceeded by this rulemaking and no Federal regulatory scheme that might be perceived to be duplicated or overlapped by this rulemaking. Adding permitting requirements for $PM_{2.5}$ in N.J.A.C. 7:27-22 is consistent with and no more stringent than the Federal requirement. The issuance of operating permits for major sources in New Jersey is controlled by Title V of the Clean Air Act, 42 U.S.C. §§ 7661-7661f and New Jersey's Federally enforceable Title V Operating Permit Program, at N.J.A.C. 7:27-22.

The adopted amendments to the Department's permitting program rules do not impose standards or requirements that exceed any Federal standards or requirements for major sources. (The Federal permitting requirements for nonattainment NSR are in Appendix S.) Similarly, the adopted amendments to N.J.A.C. 7:27-8 and 22 are consistent with the Federal requirements for the sources regulated in these rules at 40 CFR Part 51, Subpart I, and 40 CFR Part 70, respectively. Accordingly, no Federal standards analysis is required for these adopted amendments to N.J.A.C. 7:27-8, 18, 21, and 22.

Sulfur

The adopted deletion of an exemption under emergency conditions is necessary since on May 22, 2015, EPA determined that the exclusion at N.J.A.C. 7:27-7.2(k)2, which is part of the State's SIP, does not meet the CAA requirements (80 Fed. Reg. 33840, June 12, 2015). Accordingly, N.J.A.C. 7:27-7, as amended, does not exceed any Federal standards or requirements, and so no Federal standards analysis is required.

Emission Statements

The adopted amendments to N.J.A.C. 7:27-21.5(e)2 do not exceed Federal requirements; instead, they would make the State's reporting requirements consistent with (but no more

stringent than) Federal requirements by requiring the reporting of $PM_{2.5}$ and ammonia at the source level. The removal of the option to submit Emission Statements using e-mail is consistent with and does not exceed the requirements of CROMERR. None of the other adopted changes relate to or exceed Federal standards or requirements. Accordingly, no Federal standards analysis is required.

Full text of the adoption follows (additions to proposal indicated in boldface with asterisks ***thus***; deletions from proposal indicated in brackets with asterisks *[thus]*):

SUBCHAPTER 7. SULFUR

7:27-7.2 Control and prohibition of air pollution from sulfur compounds

(a)-(j) (No change.)

(k) The provisions of this Subchapter shall not apply to the discharge of sulfur compounds in the form of gases, vapors or liquid particles resulting from the combustion of commercial fuel.

(*l*)-(r) (No change.)

SUBCHAPTER 8. PERMITS AND CERTIFICATES FOR MINOR FACILITIES (AND MAJOR FACILITIES WITHOUT AN OPERATING PERMIT)

7:27-8.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

…

"Major facility" means a facility that has the potential to emit any of the air contaminants listed below in an amount that is equal to or exceeds the applicable major facility threshold level given below. The major facility threshold levels are as follows:

Air contaminant	Major Facility Threshold Level
CO	100 tons per year
PM_{10}	100 tons per year
$PM_{2.5}$	100 tons per year
...	
SO_2	100 tons per year
SO_2 (as a $PM_{2.5}$ precursor)	100 tons per year
...	
NO_x (as a $PM_{2.5}$ precursor)	100 tons per year
...	
Any other air contaminant, except CO_2	100 tons per year

…

"NO_x" or "oxides of nitrogen" means all oxides of nitrogen including, but not limited to, nitric oxide and nitrogen dioxide, except nitrous oxide.

…

" PM_{10}" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns.

"$PM_{2.5}$" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns.

…

"SO_2" or "sulfur dioxide" means a gas that has a molecular composition of one sulfur atom and two oxygen atoms.

…

APPENDIX 1

TABLE A

Reporting and SOTA thresholds

(Potential to emit)

Air contaminant	Reporting Threshold[1] (in lbs/hour)	SOTA Threshold[2] (in tons/yr)
...		
PM_{10}	0.05	5.0
$PM_{2.5}$	0.05	5.0
...		

Footnotes 1 through 3 (No change.)

TABLE B

(No change.)

SUBCHAPTER 18. CONTROL AND PROHIBITION OF AIR POLLUTION FROM NEW OR ALTERED SOURCES AFFECTING AMBIENT AIR QUALITY (EMISSION OFFSET RULES)

7:27-18.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

…

"EPA" means the United States Environmental Protection Agency.

…

"NO_x" or "oxides of nitrogen" means all the oxides of nitrogen including, but not limited to, nitric oxide and nitrogen dioxide, except nitrous oxide.

…

"PM_{10}" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns.

"$PM_{2.5}$" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns.

"$PM_{2.5}$ inter-pollutant offset" means a creditable emission reduction of $PM_{2.5}$, or of a $PM_{2.5}$ precursor, used in a $PM_{2.5}$ nonattainment area to offset an emission increase of $PM_{2.5}$, or of a $PM_{2.5}$ precursor, to provide a net air quality benefit.

…

"Respective criteria pollutant" means the corresponding criteria pollutant for each air contaminant listed in Table 3 of N.J.A.C. 7:27-18.7. The following are the air contaminants listed in Table 3, and their respective criteria pollutants:

Category of Air Contaminants	**Respective Criteria Pollutant**
...	
PM_{10}	PM_{10}
$PM_{2.5}$	$PM_{2.5}$
SO_2	SO_2 and $PM_{2.5}$
...	
NO_x	NO_2**,** O_3, and $PM_{2.5}$
...	

…

"SO_2" or "sulfur dioxide" means a gas that has a molecular composition of one sulfur atom and two oxygen atoms.

…

7:27-18.2 Facilities subject to this subchapter

(a) This subchapter applies to certain applications, submitted to the Department pursuant to N.J.A.C. 7:27-8 or 22 for authorization to construct, reconstruct, or modify control apparatus or equipment at a facility, if the requirements at (b) or (c) below apply and:

1. The facility has the potential to emit any of the air contaminants listed below in an amount that is equal to or exceeds the following threshold levels:

Air Contaminant	**Threshold Level**
CO	100 tons per year

PM_{10}	100 tons per year
$PM_{2.5}$	100 tons per year
TSP	100 tons per year
SO_2	100 tons per year
SO_2 (as a $PM_{2.5}$ precursor)	100 tons per year
NO_x	25 tons per year
NO_x (as a $PM_{2.5}$ precursor)	100 tons per year
VOC	25 tons per year
Lead	10 tons per year; or

2. (No change.)

(b)-(d) (No change.)

7:27-18.4 Air quality impact analysis

(a) Any person, subject to this subchapter pursuant to N.J.A.C. 7:27-18.2(a) and (b), who proposes to cause a significant net emission increase of an air contaminant listed in Table 3 of N.J.A.C. 7:27-18.7, not including VOC, shall conduct an air quality impact analysis to determine whether the proposed net emission increase would result in an increase in the ambient concentration of the respective criteria pollutant, not including ozone, and shall determine whether the increase in ambient concentration would:

1. - 2. (No change.)

TABLE 1

SIGNIFICANT AIR QUALITY IMPACT LEVELS FORINCREASES IN AMBIENT AIR CONCENTRATIONS IN *[NON ATTAINMENT]* ***NONATTAINMENT*** AREAS

		Averaging Time			
Pollutant	**Annual**	**24-Hour**	**8-Hour**	**3-Hour**	**1-Hour**
...					
PM_{10}	1.0 μ/m^3	5 μ/m^3			
$PM_{2.5}$	0.3 μ/m^3	1.2 μ/m^3			

*μ/m^3 = micrograms per cubic meter

(b) - (c) (No change.)

7:27-18.5 Standards for use of emission reductions as emission offsets

(a) – (b) (No change.)

(c) Any use of emission reductions to offset an emission increase shall result in a net air quality benefit. Except as provided in (e), (f), (g), or (l) below, such net air quality benefit shall be demonstrated by showing that the ratio of emission offsets to the proposed net increase in allowable emissions equals or exceeds the minimum offset ratio, specified in Table 2 below, that is applicable based on the distance between the facility and the location of the emission reductions being proposed as emission offsets.

TABLE 2

MINIMUM OFFSET RATIO

Air Contaminant	**Distance (miles)**	**Minimum Offset Ratio (Reductions: Increase)**

...

NO_x (as a $PM_{2.5}$ precursor)	Any	1.0:1.0

...

SO_2 (as a $PM_{2.5}$ precursor)	Any	1.0:1.0

...

PM_{10}	0-0.5	1.0:1.0
	0.5-1.0	1.5:1.0
	1.0-2.0	2.0:1.0
$PM_{2.5}$	Any	1.0:1.0

...

(d) – (e) (No change.)

(f) Notwithstanding (e) above, in no case shall the minimum offset ratio be less than:

1. For CO, NO_x (as a $PM_{2.5}$ precursor), and SO_2 (as a $PM_{2.5}$ precursor), 1.00:1.00; and

2. (No change.)

(g) Creditable emission reductions may be used as emission offsets only:

1. If they are qualitatively equivalent in their effects on public health and welfare to the effects attributable to the proposed increase; and

2. If they are emission reductions of the same category of air contaminant, except as provided at (*l*) below.

(h) – (k) (No change.)

(*l*) An applicant that provides for the use of $PM_{2.5}$ inter-pollutant offsets shall demonstrate the net air quality benefit required at (c) above by showing that the ratio of emission offsets to the

proposed net increase in allowable emissions equals or exceeds one of the following minimum offset ratios:

1. A $PM_{2.5}$ inter-pollutant offset ratio established by the Department, approved by EPA, and published by the Department in Technical Manual 1002, "Guidance on Preparing an Air Quality Modeling Protocol";

2. A $PM_{2.5}$ inter-pollutant offset ratio established by EPA and approved by the Department; or

3. A regional $PM_{2.5}$ inter-pollutant offset ratio developed by the applicant or by a regional air pollution control organization that includes a technical demonstration showing a net air quality benefit, and is approved by the Department and EPA.

(m) When *[an]** **a** NO_x offset is required pursuant to N.J.A.C. 7:27-18.3(c) or (d), the NO_x offset shall be secured based on the more stringent of the two applicable NO_x offset ratios.

(n) $PM_{2.5}$ inter-pollutant offsets cannot be used to determine significant net emission increase levels pursuant to N.J.A.C. 7:27-18.7.

7:27-18.7 Determination of a net emission increase or a significant net emission increase

(a) Any calculation to determine whether the maximum allowable emissions proposed in an application for a permit would result in a net emission increase or significant net emission increase at the facility of any air contaminant listed in Table 3 below shall be conducted in accordance with the following:

1. (No change.)

2. Compare the net emission increase of each air contaminant, derived pursuant to (a)1 above, to the significant net emission increase level for that air contaminant set forth in Table 3

below. If the net emission increase is equal to or greater than the applicable significant net emission increase level, it is a significant net emission increase.

TABLE 3

SIGNIFICANT NET EMISSION INCREASES

Air Contaminant	**Significant Net Emission Increase Levels (tons per year)**
SO_2	40
SO_2 (as a $PM_{2.5}$ precursor)	40
TSP	25
PM_{10}	15
$PM_{2.5}$	10
NO_x	25
NO_x (as a $PM_{2.5}$ precursor)	40
CO	100
Pb	0.6
VOC	25

SUBCHAPTER 21. EMISSION STATEMENTS

7:27-21.1 Definitions

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise.

…

"Emission Statement Guidance Document" refers to the Emission Guidance Document, version 2017.1, dated October 17, 2016, and any addendum or subsequent revision, published at the Department's website at http://www.nj.gov/dep/baqp/. This publication is updated annually to incorporate the Department's latest guidance regarding Emission Statement policies, reporting procedures and format. This information is provided in order to assist the owner or operator of a facility subject to this subchapter with the process of completing, certifying and submitting an Emission Statement.

…

"$PM_{2.5}$" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns.

"PM_{10}" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns.

…

"RADIUS" means the Department's Remote Access Data Information User System, which is available at http://www.nj.gov/dep/aqpp/radius.html, and which includes the software provided by the Department for the electronic preparation and submittal to the Department of air permit applications and Emission Statements. "RADIUS" also means successor software that the Department makes available for the same purpose.

…

7:27-21.3 General provisions

(a) (No change.)

(b) An Emission Statement shall include the information required under N.J.A.C. 7:27-21.5 and shall include emission information for the following air contaminants:

1. If the facility's potential to emit VOC is less than 25 tons per year and if the facility's potential to emit each of the other air contaminants listed in Table 1 at N.J.A.C. 7:27-21.2 is less than the applicable reporting threshold set forth in Table 1 such that the facility is subject to Emission Statement requirements only because its potential to emit VOC is equal to or greater than 10 tons per year, emission information shall be reported only for:

i. The following three Table 1 air contaminants: VOC, NO_x, and CO, reported at the source level; and

ii. Each of the toxic air pollutants that are listed in N.J.A.C. 7:27-21, Appendix 1, Table 1 and for which the facility has a potential to emit that is equal to or greater than the applicable reporting threshold given in N.J.A.C. 7:27-8, Appendix 1, Table B, Reporting and SOTA Thresholds for HAPs, reported at the facility level;

2. If the facility's potential to emit VOC is equal to or greater than 25 tons per year or if the facility's potential to emit any other air contaminants listed in Table 1 at N.J.A.C. 7:27-21.2 is equal to or greater than the reporting threshold, emission information shall be reported for the following:

i. Each of the air contaminants listed in Table 1 at N.J.A.C. 7:27-21.2, reported at the source level;

ii. The greenhouse gases CO_2 and CH_4, reported at the facility level; and

iii. Each of the toxic air pollutants that are listed in N.J.A.C. 7:27-21, Appendix 1, Table 1 and for which the facility has a potential to emit that is equal to or greater than the applicable reporting threshold listed in N.J.A.C. 7:27-8, Appendix 1, Table B, Reporting and SOTA Thresholds for HAPs, reported at the facility level.

(c)-(h) (No change.)

7:27-21.4 Procedure for submitting an Emission Statement

(a) (No change.)

(b) For an Emission Statement submitted for reporting year 2002 or later, the following procedures apply:

1. Unless the owner or operator obtains approval pursuant to (d) below to submit an Emission Statement on paper, each Emission Statement shall be prepared using the Remote Access Data Information User System (RADIUS) software (or its successor software) available from the Department at the address given at (c) below, and submitted either through NJDEP online (www.njdeponline.com) or on a Department-accessible electronic storage medium (such as a CD) delivered to the Department at the address at (c) below;

2. (No change.)

3. An Emission Statement shall be submitted to the Department by the following due date:

i. (No change.)

ii. For submittals either through NJDEP online (www.njdeponline.com) or on a Department-accessible electronic storage medium, by May 15 of the submittal year; this due date shall also apply to the paper copy of the Emission Statement submitted when certain information in the electronic version of the Emission Statement is claimed to be confidential.

(c)-(e) (No change.)

7:27-21.5 Required contents of an Emission Statement

(a)-(d) (No change.)

(e) (Reserved)

(f)-(j) (No change.)

7:27-21.8 Certification of information

(a) (No change.)

(b) Certification of an Emission Statement, pursuant to (a) above, shall be performed in accordance with the following:

1. If the Emission Statement is being submitted through NJDEP online, the responsible official shall certify the submittal by inserting his or her personal identification number (PIN), as assigned by the Department, into the applicable signature area following the text of the certification language; and this insertion of a PIN shall constitute certification of the Emission Statement in accordance with (a) above; or

2. If the Emission Statement is being provided to the Department through the mail or by a courier service (such as USPS, FedEx, or UPS) the responsible official shall sign the certification on the paper certification form available at the website of the Bureau of ***[**Air Quality Planning**]*** ***Evaluation and Planning*** at ***[**http://www.nj.gov/dep/baqp/**]*** ***http://www.state.nj.us/dep/aqm/es/emstatpg.html***; and this signature shall constitute certification of the Emission Statement in accordance with the certification language at (a) above.

(c) (No change.)

SUBCHAPTER 22. OPERATING PERMITS

7:27-22.1 Definitions

The following words and terms, when used in this subchapter, have the meanings given below unless the context clearly indicates otherwise.

…

"Major facility" means a facility that constitutes a major source, as defined by EPA at 40 CFR 70.2 or any subsequent amendments thereto, and that has the potential to emit any of the air contaminants listed below in an amount that is equal to or exceeds the applicable major facility threshold level. The major facility threshold levels are as follows:

Air contaminant	Major Facility Threshold Level
CO	100 tons per year
PM_{10}	100 tons per year
$PM_{2.5}$	100 tons per year
TSP	100 tons per year
SO_2	100 tons per year
SO_2 (as a $PM_{2.5}$ precursor)	100 tons per year
NO_x	25 tons per year
NO_x (as a $PM_{2.5}$ precursor)	100 tons per year
VOC	25 tons per year
Lead	10 tons per year
Any HAP	10 tons per year
All HAPs, collectively	25 tons per year
Any other air contaminant, except CO_2	100 tons per year

…

"NO_x" or "oxides of nitrogen" means all oxides of nitrogen, except nitrous oxide, as measured by test methods approved by the Department and EPA, such as the test methods set forth at 40 CFR 60, Appendix A, Methods 7 through 7E.

…

"PM_{10}" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns.

"$PM_{2.5}$" means a class of air contaminants that includes all particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns.

…

"SO_2" or "sulfur dioxide" means a gas that has a molecular composition of one sulfur atom and two oxygen atoms.

…

7:27-22.2 Applicability

(a) This subchapter applies to any facility that is one of the following:

1. (No change.)

2. A facility that emits or has the potential to emit any of the air contaminants listed below in Table 1, in an amount that equals or exceeds the threshold amount for that contaminant. Emissions of carbon dioxide (CO_2) are not to be used in determining applicability under this section.

Table 1

Air Contaminant	Threshold Level
CO	100 tons per year

PM_{10}	100 tons per year
$PM_{2.5}$	100 tons per year
TSP	100 tons per year
SO_2	100 tons per year
SO_2 (as a $PM_{2.5}$ precursor)	100 tons per year
NO_x	25 tons per year
NO_x (as a $PM_{2.5}$ precursor)	100 tons per year
VOC	25 tons per year
Lead	10 tons per year
Any other air contaminant, except CO_2	100 tons per year

For the purpose of this paragraph, the calculation of potential to emit shall include fugitive emissions only if the facility falls into one or more of the following categories:

i.-xxvii. (No change.)

3.-6. (No change.)

(b)-(e) (No change.)

7:27-22.8 Air quality simulation modeling and risk assessment

(a) An applicant for an initial operating permit for a new major facility, or for a minor modification or significant modification to an existing operating permit, shall conduct air quality simulation modeling in accordance with (c) below if:

1.-2. (No change.)

3. The application includes relocation of a temporary facility to a site not specifically authorized in the operating permit, and air quality simulation modeling or risk assessment was required for the location(s) authorized in the operating permit;

4. The application includes source operations which, based on screening procedures published in technical manuals by the Department, have the potential to cause any of the adverse air quality effects listed in (b)1 through 4 below; or

5. The application is subject to the technical demonstration requirement set forth at N.J.A.C. 7:27-18.5(l)3.

(b) (No change.)

(c) The air quality simulation modeling shall be conducted using procedures published in technical manuals by the Department and in accordance with a protocol approved in advance by the Department. The protocol shall document how the air quality simulation modeling is to be conducted and how the results of the analysis are to be presented to the Department. The protocol shall be prepared in accordance with the Department's technical manuals on Air Quality Modeling (technical manual 1002) and Risk Assessment (technical manual 1003), available on the Department's website at http://www.nj.gov/dep/aqpp/techman.html and at the following address:

Department of Environmental Protection

***Division of ***Air Quality *[Permitting Program]*

Bureau of *[Technical Services]* ***Evaluation and Planning***

Air Quality Evaluation Section

401 East State Street, 2nd Floor

Mail Code 401-02

PO Box 420

Trenton, New Jersey 08625-0420

Telephone: (609) *[633-1110]* ***292-6722***

(d)-(e) (No change.)

APPENDIX

TABLE A

Thresholds for Reporting Emissions of Air Contaminants

Other than Hazardous Air Pollutants (HAPs)

Air Contaminant	Hourly Emissions (pounds per hour)
VOC	0.05
TSP	0.05
PM_{10}	0.05
$PM_{2.5}$	0.05
NO_x	0.05
CO	0.05
SO_2	0.05
Any other air contaminant(1)	0.05

(1)This air contaminant category shall apply to any other air contaminant (except CO_2), other than hazardous air pollutants (HAPs) that the facility has the potential to emit in a quantity greater than or equal to 100 tons per year.

TABLE B

(No change.)