

Revised PART 212
PROCESS OPERATIONS

SUBPART 212-1
GENERAL PROVISIONS

Section 212-1.1 Applicability.

(a) Part 212 applies to process emission sources and/or emission points associated with a process operation, unless excepted from the provision of this Part pursuant to Section 212-1.4 of this Subpart:

(1) upon issuance of a new or modified permit or registration for a facility containing process emission sources and/or emission points.

(2) Upon issuance of a renewal for an existing permit or registration.

(b) Any emission limitation or other requirements in effect prior to the effective date of this Part shall remain in effect until issuance of a modified permit or registration or renewal of the permit or registration.

Section 212-1.2 Definitions.

(a) For the purpose of this Part, the general definitions in Part 200 of this Title apply.

(b) For the purpose of this Part, the following definitions also apply:

(1) 'Aggregate.' Any hard, inert material used for mixing in graduated particles or fragments. Includes sand, gravel, crushed stone, slag, rock dust or powder.

(2) 'Animal [Oncogens] Oncogenes.' Chemicals for which oncogenicity has been demonstrated in at least one mammalian species.

(3) 'Carcinogenic to Humans'. Chemicals where there is convincing epidemiological evidence of a causal association between human exposure and cancer as described by the United States Environmental Protection Agency Guidelines for Carcinogen Risk Assessment.

(4) 'Criteria Air Contaminant.' Particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen dioxide. Elemental lead is a criteria air contaminant as well as a federal Hazardous Air Pollutant: elemental lead and lead compounds are also treated as a High Toxicity Air Contaminant.

(5) 'Guideline Concentrations.' Ambient air concentrations that are listed in the Division of Air Resource's Annual and Short-term Guideline Concentrations (AGC/SGC) Tables.

(6) 'Genotoxic Chemicals'. Chemicals that have been shown to damage DNA or chromosomes in in-vitro and/or in-vivo short-term tests.

(7) 'Hot mix asphalt.' Paving material that is produced by mixing hot dried aggregate with heated asphalt cement.

(8) 'Hot Mix Asphalt Production Plant.' A facility comprised of process operations to produce paving material manufactured by mixing hot dried aggregate with heated asphalt cement.

(9) 'High Toxicity Air Contaminants (HTACs).' Chemicals that are carcinogenic to humans; or likely to be carcinogenic to humans; or chemicals that are known to cause adverse outcomes in humans for reproductive and developmental effects; or chemicals that elicit irreversible or progressive detrimental effects that have been observed in humans; or chemicals meeting the definition of Persistent and Bioaccumulative in this section; or any chemicals meeting the following LC₅₀ or LD₅₀ values:

'(i)' LD₅₀ (dermal) is equal or less than 200 mg/kg; or

'(ii)' LC₅₀ (inhalation) is equal or less than 200 ppm; or

'(iii)' LD₅₀ (oral) is equal or less than 50 mg/kg.

(10) 'Low NO_x burner.' A burner designed to reduce flame turbulence by the mixing of fuel and air and by establishing fuel-rich zones for initial combustion, thereby reducing the formation of nitrogen oxides (NO_x).

(11) 'Lethal Dose Fifty or Lethal Concentration Fifty (LD₅₀ or LC₅₀).' The median administered dose that will kill 50 percent of a tested mammalian specie.

(12) 'Likely to be Carcinogenic in Humans.' Chemicals with evidence indicating oncogenicity in two mammalian species; or one mammalian species, independently reproduced; or one mammalian species, to an unusual degree with respect to incidence, latency period, site, tumor type or age at onset; or one mammalian species, supported by positive results in short-term tests which are indicative of potential oncogenic activity.

(13) 'Low Toxicity Air Contaminant'. Chemicals that can cause irritation or reversible effects to sensitive members of the population, and which do not meet the criteria for classification as a High Toxicity

or Moderate Toxicity Air Contaminants.

(14) ‘Moderate Toxicity Air Contaminants’. Chemicals that are animal [oncogens] oncogenes; or chemicals that are known to cause adverse outcomes in animal species for reproductive and developmental effects; or genotoxic chemicals; or chemicals that when inhaled have caused significant chronic adverse effects in test animals, or any chemicals meeting the following LC₅₀ or LD₅₀ values:

‘(i) LD₅₀ (dermal) is greater than 200 mg/kg but less than 1,000 mg/kg; or

‘(ii) LC₅₀ (inhalation) is greater than 200 ppm but less than 2,000 ppm; or

‘(iii) LD₅₀ (oral) is greater than 50 mg/kg but less than 500 mg/kg.

(15) ‘Overall removal efficiency.’ The total reduction of VOC emissions considering the efficiency of both the capture system and of the subsequent destruction and/or removal of these air contaminants by the control equipment prior to their release into the outdoor atmosphere.

(16) ‘Persistent and Bioaccumulative.’ Where chemicals that are emitted to the air persist in the environment, and are estimated to have a half-life of greater than or equal to six months in water or soil or sediments; or where chemicals have the ability to bioconcentrate or biomagnify in the food chain and have bioconcentration factors (BCFs) greater than 1,000 in fish or shellfish.

(17) ‘Persistent and Bioaccumulative (PB) Trigger.’ A yearly mass emission limit equaling 10 times the mass emission listed in Section 212-2.2 of this Part for all corresponding persistent and bioaccumulative air contaminants emitted from the facility.

(18) ‘Process operation.’ Any industrial, institutional, commercial, agricultural or other activity,

operation, manufacture or treatment in which chemical, biological and/or physical properties of the material or materials are changed, or in which the material(s) is conveyed or stored without changing the material(s) if the conveyance or storage system is equipped with a vent(s) and is non-mobile, and that emits air contaminants to the outdoor atmosphere. A process operation does not include an open fire, operation of a combustion installation, or incineration of refuse other than by-products or wastes from a process operation(s).

(19) 'Process Emission Source.' Any apparatus, contrivance or machine, including any appurtenant exhaust system or air cleaning device capable of causing emissions of any air contaminant to the outdoor atmosphere from a process operation.

(20) 'Toxic - Best Available Control Technology (T-BACT).' The maximum degree of reduction or the emission limitation for each non-criteria air contaminant that the department determines is achievable for a process operation on a case-by-case basis. The department will determine an achievable degree of reduction or emission limitation using the following parameters:

(i) process, fuels and raw material available [and] to be used;

(ii) engineering aspects of the application of various types of control technology which have been adequately demonstrated;

(iii) process and fuel changes;

(iv) respective costs of the application of all such control technologies, process changes, alternative fuels, etc.; and the

(v) toxicity of the air contaminant.

(21) 'Toxic Impact Assessment (TIA).' An inhalation risk assessment that is supported by a protocol

describing the procedures to be used to predict maximum offsite ambient air concentrations.

(22) ‘Tune-up.’ Adjustments made to a burner in accordance with procedures supplied by the manufacturer (or an approved specialist) to optimize the combustion efficiency.

Section 212-1.3 Determination of Environmental Rating.

In accordance with the applicability requirements of Section 212-1.1 of this Part, the department will assign an environmental rating for each air contaminant emitted from each process emission source or emission point in accordance with Subdivisions (a) through (e) of this Section. The factors in Subdivisions (a) through (d) will be considered in making a determination of the environmental rating to be applied to an air contaminant pursuant to subdivision (e), Table 1 – Environmental Rating Criteria of this section.

(a) Toxic and other properties and emission rate potential of the air contaminant;

(b) location of the process emission source or emission point(s) for the air contaminant with respect to residences or other sensitive environmental receptors, taking into account the area’s anticipated growth;

(c) emission dispersion characteristics at or near the process emission source or emission point(s), taking into account the physical location of the process emission source or emission point(s) relative to the surrounding buildings and terrain; and

(d) the projected maximum cumulative impact of an air contaminant taking into account emissions from all process emission sources at the facility under review and the pre-existing ambient concentration of the air contaminant under review.

(e) Table 1 - Environmental Rating Criteria

'Rating'	'Criteria'
A	An air contaminant whose discharge results, or may result, in serious adverse effects on receptors or the environment. These effects may be of a health, economic or aesthetic nature or any combination of these.
B	An air contaminant whose discharge results, or may result in only moderate and essentially localized effects; or where the multiplicity of sources of the contaminant in any given area require an overall reduction of the atmospheric burden of that contaminant.
C	An air contaminant whose discharge may result in localized adverse effects of an aesthetic or nuisance nature.
D	An air contaminant whose discharge will not result in measurable or observable effects on receptors, nor add to an existing or predictable atmospheric burden of that contaminant which may cause adverse effects, considering properties and concentrations of the emissions, isolated conditions, stack height, and other factors.

Section 212-1.4 Exceptions.

The following process emission sources are not subject to the provisions of this Part:

(a) process emission sources that are either temporary emission sources under Section 201-1.11 of this Title [and] or process emission sources that are exempt or trivial under Sections 201-3.2 and 201-3.3 of this Title, respectively;

(b) kilns and clinker coolers in portland cement plants subject to Subpart 220-1 or glass plants subject to Subpart 220-2 of this Title, only with respect to emissions of air contaminants that are not given an A rating;

(c) process emission sources, other than kilns and clinker coolers, in a Portland cement plant, only with respect to opacity of emissions;

(d) ferrous jobbing foundry melting furnaces in operation on or prior to February 6, 1968, only with respect to particulate emissions;

(e) air contaminants subject to Part 214 of this Title, only from by-product coke oven batteries as defined in section 214.1(b)(1) of this Title. Air contaminants generated from flue gas handling, flue gas treatment, ammonia stripping and by-product recovery are subject to the requirements of this Part unless specifically defined and controlled in a New Source Performance Standard (NSPS);

(f) process emissions sources at any gasoline, petroleum, or VOC liquid storage or transfer facility that is subject to Part 229 of this Title, only with respect to emissions of VOCs that are not given an A rating;

(g) process emission sources in a sulfuric or nitric acid plant that is subject to Part 224 of this Title, only with respect to emissions of NO_x, oxides of sulfur, sulfuric acid mist and smoke;

(h) process emission sources at a petroleum refinery subject to Part 223 of this Title, only with respect to sulfur compound emissions and emissions of VOCs that are not given an A rating;

(i) process emission sources with emissions of oxides of sulfur, only with respect to oxides of sulfur emissions attributable solely to sulfur in fuel;

(j) process emissions sources at a solvent metal cleaning process operation subject to Part 226 of this Title or a solvent metal cleaning process operation exempt from Part 226 of this Title [pursuant to Section 226.2,] only with respect to emissions of VOCs that are not given an A rating;

(k) process emission sources at iron and/or steel processes, only with respect to emissions that are not given an A rating, subject to Part 216 of this Title;

(l)(1) process emission sources subject to Table 1 of Subpart 228-1 of this Title or process emission sources exempt from Subpart 228-1 of this Title pursuant to section 228-1.1(b), only with respect to emissions [of VOCs] that are not given an A rating;

(2) process emission sources associated with mobile equipment repair and refinishing as described in Subpart 228-1 of this Title;

(3) commercial and industrial adhesives, sealants, or primers subject to Subpart 228-2 of this Title, only with respect to emissions [of VOCs] that are not given an A rating;

(m) process emission sources with emissions of carbon monoxide or VOCs produced attributable solely to incomplete combustion of any fuel, except where material is heated, burned, combusted or otherwise chemically changed under oxygen deficient conditions by design;

(n) dry cleaning facilities subject to Part 232 of this Title;

(o) pharmaceutical and cosmetic manufacturing process operations subject to Part 233 of this Title and process operations exempt from Part 233 of this Title pursuant to Section 233.1(g), only with respect to emissions of VOCs that are not given an A rating;

(p) graphic arts process operations subject to Section 234.1(a) of this Title and graphic arts process operations exempt from Part 234 of this Title pursuant to Section 234.1(d) of this Title, only with respect to emissions of VOCs that are not given an A rating;

(q) process emissions sources at a primary aluminum reduction plant subject to Part 209 of this Title, only with respect to opacity and emissions of total fluorides;

(r) process emission sources with respect to emissions of NO_x produced by catalytic or thermal oxidizers used as air pollution control equipment; and

(s) gasoline dispensing sites and transport vehicles that are subject to Part 230 of this Title;

Section 212-1.5 Determining applicable emission standards for process operations.

(a) In instances where air contaminants from two or more process emission sources may be simultaneously emitted to the outdoor atmosphere through a single emission point, the permissible emission rate or degree of air cleaning required is determined by using the sum of the process weights or emission rate potentials for all process emission sources.

(b) In instances where air contaminants from a single process emission source are emitted to the outdoor atmosphere through more than one emission point, the sum of the emissions from all such emission points shall not exceed the quantity that would be authorized through a single emission point.

(c) In instances where air contaminants from two or more process emission sources are emitted to the outdoor atmosphere through a single emission point and the applicable emission standard for one or more process emission sources, if vented separately to the outdoor atmosphere, is a concentration standard (grains per standard cubic foot), the permissible emission rate through such emission point shall not exceed the quantity that would be authorized if the emissions were through separate emission points.

(d) In instances where a facility owner or operator can demonstrate to the satisfaction of the department that the facility owner or operator will apply BACT for criteria air contaminants or T-BACT for non-criteria air contaminants, the department may specify a less restrictive permissible emission rate or degree of air cleaning for the process emission source or emission point than required under Subpart 212-2 of this Part.

(e)(1) A process emission source subject to a Federal NSPS under 40 CFR Part 60 (see Table 1, Section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the facility is in compliance with the relevant Federal regulation.

(2) A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 61 or Part 63 (see Table 1 of Section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the process emission source is in compliance with the relevant Federal

regulation and, for those NESHAPs regulating HTACs found in Section 212-2.2, Table 2 – High Toxicity Air Contaminant List, of this Part, provide a TIA demonstrating that the maximum offsite ambient air concentration is less than the AGC/SGC or meeting the mass emission limit identified in Section 212-2.2, Table 2. Either compliance option must have actual [and that] emissions [are] less than the PB trigger for the respective air contaminant.

Facility owners or operators required to submit a TIA shall submit a protocol describing the procedures to be used to predict the maximum offsite ambient air concentration. Once the protocol is approved by the department and the TIA is conducted, the facility owner or operator shall submit a final report to the department along with the air dispersion modeling results for approval. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments; however, screen dispersion models do not require an approved modeling protocol.

(f) Facility owners or operators whose process operations emit NO_x or VOCs and meet the applicability requirements of Subpart 212-3 or Subpart 212-4 of this Part are not subject to the control provisions in Subpart 212-2 of this Part for NO_x or VOCs. However, if an individual air contaminant, as a component of total VOCs, is assigned an environmental rating of A, that individual air contaminant must meet the control requirements of Subpart 212-2 of this Part.

(g) At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Section 212-1.6 Limiting of Opacity.

(a) No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

(b) Upon written application by a facility owner or operator, the department may allow for a process emission source or emission point an equivalent opacity standard exceeding the opacity standard of Subdivision (a) of this Section, if the facility owner or operator can demonstrate through acceptable tests for such source that the facility is in compliance with all applicable emission limits and requirements other than the opacity standard and that the process emission source and any associated emission control equipment is being operated and maintained in a manner acceptable to the department. An equivalent opacity standard for a process emission source will only be allowed where Reasonably Available Control Technology (RACT), as determined by the department, has been utilized for air contaminants contributing to opacity. In such cases, the facility owner or operator shall not cause or allow emissions to exceed the equivalent opacity standard.

Section 212-1.7 Sampling and Monitoring.

(a) Facility owners and/or operators of a process emission source required by the department to demonstrate compliance with this Part may be required to conduct capture efficiency and/or stack emissions testing using acceptable and approved procedures pursuant to Part 202 of this Title.

(b) Facility owners and/or operators of any emission source equipped with either a thermal or catalytic oxidizer, fixed bed carbon absorption unit or refrigerated condenser must install continuous monitors and data recorders for the applicable parameters listed in Paragraphs (b)(1) through (b)(5) of this Subdivision prior to start-up of a new or modified process emission source(s). Continuous monitors must be operated at all times

when the associated emission control equipment is operating except during any quality assurance and routine maintenance activities. Each monitor must be operated according to a quality assurance program approved by the department. Alternative monitoring methods may be employed subject to department approval.

(1) the exhaust gas temperature from thermal or catalytic oxidizer;

(2) the temperature rise across catalytic oxidizer beds;

(3) the VOC outlet concentrations from fixed-bed carbon adsorption units;

(4) the outlet gas temperature from refrigerated condensers; or

(5) any other parameters required by conditions in the State Facility or Title V Permit for the process emission source.

(c) For the purpose of ascertaining compliance with this Part, the department may obtain or require the facility owner or operator of an emission source to provide a sample of any type 5 or 6 refuse (see Table 1 of Appendix 2 of Part 219 of this Title for classifications of refuse) where such refuse is an input material of the process operation.

(d) Any facility that was subject to this Section after June 1, 1995, will remain subject to these provisions for all applicable parameters listed in Paragraphs (b)(1) through (b)(5) of this section.

SUBPART 212-2

ALLOWABLE EMISSIONS

Section 212-2.1. Requirements.

Emissions of air contaminants to the outdoor atmosphere from any process emission source or emission point are restricted as follows:

(a) for an air contaminant listed in Section 212-2.2 Table 2 – High Toxicity Air Contaminant List, of this Part, the facility owner or operator shall either limit the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in Subdivision 212-2.3(b), Table 4 – Degree of Air Cleaning Required for Non-Criteria Air Contaminants, of this Part for the environmental rating assigned to the contaminant by the department.

(b) for any air contaminant not listed on Table 2, unless it is a solid particulate described in subdivision (c) of this Section, the facility owner or operator shall not allow emissions of an air contaminant to violate the requirements specified in Subdivision 212-2.3(a), Table 3 – Degree of Air Cleaning Required for Criteria Air Contaminants of this Subpart, or Subdivision 212-2.3(b), Table 4 – Degree of Air Cleaning Required for Non-Criteria Air Contaminants of this Subpart, as applicable, for the environmental rating assigned to the contaminant by the department.

(c) for a solid particulate assigned an environmental rating of B or C emitted from a process emission source, the facility owner or operator shall not allow emissions of particulate to exceed the requirements specified in Subpart 212-2.4 of this Part.

Section 212-2.2 Table 2 – High Toxicity Air Contaminant List

CAS Number	Contaminant Name	Mass Emission Limit (pounds per year)	PB Trigger Applicable
000050-00-0	Formaldehyde	100	
000056-23-5	Carbon tetrachloride	100	
000062-53-3	Aniline	1000	
000064-67-5	Diethyl sulfate	250	
[000067-66-3]	[Chloroform]	[100]	
000071-43-2	Benzene	100	
000074-90-8	Hydrogen cyanide	100	
000075-01-4	Vinyl chloride	100	
000075-07-0	Acetaldehyde	1000	
000075-21-8	Ethylene oxide	25	
000075-44-5	Phosgene	500	
000077-78-1	Dimethyl sulfate	250	
000078-87-5	Propylene dichloride	1000	
000079-00-5	1,1,2 trichloroethane	100	
000079-01-6	Trichloroethylene	500	
000079-06-1	Acrylamide	10	
000079-11-8	Chloroacetic acid	1000	
000079-34-5	1,1,2,2-tetrachloroethane	1000	
000079-46-9	2-nitropropane	5000	
000091-94-1	3,3'-dichlorobenzidine	5	

CAS Number	Contaminant Name	Mass Emission Limit (pounds per year)	PB Trigger Applicable
000092-87-5	Benzidine	0.1	
000095-53-4	O-toluidine	[5000] <u>100</u>	
000096-45-7	Ethylene thiourea	100	
000100-44-7	Benzyl chloride	25	
000106-93-4	1,2-dibromoethane	5	
<u>000106-94-5</u>	<u>1-bromopropane</u>	<u>500</u>	
000106-99-0	1,3-butadiene	25	
000107-02-8	Acrolein	25	
000107-06-2	1,2-dichloroethane	100	
000107-13-1	Acrylonitrile	25	
000107-18-6	Allyl alcohol	500	
000109-86-4	2-methoxy ethanol	5000	
000118-74-1	Hexachlorobenzene	5	Yes
000122-66-7	Diphenyl hydrazine	10	
000127-18-4	Perchloroethylene	1000	
000302-01-2	Hydrazine	0.1	
000542-75-6	1,3-dichloropropene	500	
000593-60-2	Vinyl bromide	500	
000625-31-0	4-penten-2-ol	500	
001336-36-3	Polychlorinated biphenyls (PCBs)	1	Yes

CAS Number	Contaminant Name	Mass Emission Limit (pounds per year)	PB Trigger Applicable
001395-21-7	Subtilisin	NA*	
001746-01-6	2,3,7,8 TCDD TEF Polychlorinated Dibenzodioxins Polychlorinated Dibenzofurans	0.0001	Yes
002465-27-2	Auramine	0.1	
007440-62-2	Vanadium	25	
007550-45-0	Titanium tetrachloride	0.1	
007784-42-1	Arsine	10	
009014-01-1	Subtilisin, fermentation product	NA*	
029082-74-4	Octachlorostyrene	NA*	Yes
	Arsenic compounds	1	
	Beryllium compounds	1	
	Brominated Flame Retardants**	100	Yes
	Cadmium compounds	[25] 1	Yes
	Chromium compounds	250	
	Chromium (VI) compounds	0.1	
	Diisocyanate compounds	100	
	Lead compounds	5	Yes
	Manganese compounds	10	
	Mercury compounds	5	Yes

CAS Number	Contaminant Name	Mass Emission Limit (pounds per year)	PB Trigger Applicable
	Nickel compounds	10	
	Pesticide, herbicide, rodenticide, insecticide***	NA*	Yes
	Polycyclic organic matter (POM)	1	Yes
	Polytetrafluoroethylene (decomposition)	NA*	

*These HTACs are not eligible for demonstrating compliance with a mass emission limit

**Including but not limited to Polybrominated diphenyl ethers (PBDEs), Tetrabromobisphenol A (TBBPA), Hexabromocyclododecane (HBCD)

*** Aldrin/Dieldrin (000309-00-2), Chlordane (000057-74-9 and 012789-03-6), DDE (000072-55-9), DDT (000050-29-3), Heptachlor (000076-44-8), Isodrin (000465-73-6), Methoxychlor (000072-43-5), Pendimethalin (040487-42-1), Pentachlorobenzene (000608-93-5), (000079-94-7), Toxaphene (008001-35-2), Trifluralin (001582-09-8)

Section 212-2.3 Degree of Air Cleaning Required

(a) Table 3 - Degree of Air Cleaning Required for Criteria Air Contaminants

Degree of Air Cleaning Required for Criteria Air Contaminants Gases and Liquid Particulate Emissions (Environmental Rating A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D)										
'EMISSION RATE POTENTIAL (LBS/HR)'										
Environmental Rating	Less than 1	≥ 1 to 10	≥ 10 to 20	≥ 20 to 100	≥ 100 to 500	≥ 500 to 1,000	≥ 1,000 to 1,500	≥ 1,500 to 4,000	≥ 4,000 to 10,000	10,000 or greater
A	NAAQS *	99%								
B	NAAQS *	90%	91%	94%	96%		97%	98%	99% or greater	
C	NAAQS *	70%	75%	85%	90%		93%	95%	98% or greater	
D	NO AIR CLEANING REQUIRED									

* Using air dispersion modeling demonstrate that the [maximum] offsite air concentration is less than the respective National Ambient Air Quality Standard reported as the design value of the criteria pollutant.

(b) Table 4 - Degree of Air Cleaning Required for Non-Criteria Air Contaminants

Degree of Air Cleaning Required for Non-Criteria Air Contaminants Gases and Liquid Particulate Emissions (Environmental Rating A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D)					
'EMISSION RATE POTENTIAL'					
Environmental Rating	Less than 0.1 lbs/hr and lbs/yr ≤ PB trigger	≥ 0.1 to 1 lbs/hr or lbs/yr > PB trigger	≥ 1 to 10 lbs/hr	≥ 10 to 25 lbs/hr	Greater than 25 lbs/hr
A	Guideline Concentration*	90%	99%	99.5%	99.5%
B	Guideline Concentration*			90%	
C	Guideline Concentration*			75%	
D	NO AIR CLEANING REQUIRED				

* Using air dispersion modeling demonstrate that the maximum offsite air concentration is less than the applicable AGC/SGC

Section 212-2.4 Control of particulate emissions released from existing process emission sources.

(a) Emissions from any process emission source for which an application was received by the department prior to July 1, 1973 are restricted as follows:

(1) No facility owner or operator shall cause or allow emissions of particulate that exceed 0.15 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where the determination of the permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5 (a) and (b) of this Subpart.

(b) The control of particulate emissions released from new and modified process emission sources. Emissions from any process emission source for which an application was received by the department after July 1, 1973 are restricted as follows:

(1) No facility owner or operator shall cause or allow emissions of particulate that exceed 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where determination of permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5(a) and (b) of this Subpart.

(c) Emissions of particulates shall be measured by using the emission testing method found in 40 CFR part 60 Appendix A-3 Method 5.

Section 212-2.5

(a) Table 5- Process Weight Source Categories

Process Operations for which Permissible Emission Rate is Based on Process Weight:	
a.	[Stone dryers (asphalt concrete plants)] ' <u>Reserved</u> '
b.	Expanded aggregate kilns (lightweight aggregate plants)
c.	Continuous process material dryers emitting solid particulates and water only
d.	Brass and bronze melting furnaces
e.	Ferro alloy production furnaces
f.	Lime kilns
g.	Glass production furnaces
h.	Graphitizing and silicon carbide furnaces
i.	Gypsum dryers
j.	Primary aluminum reduction pot lines

(b) Table 6 - Permissible Emission Rate

Process weight per hour (lb/hr)	Permissible emission rate (lb/hr)	
	Existing emission source*	New emission source or modification
100	[0.51] <u>0.52</u>	[0.51] <u>0.52</u>
500	1.5	1.5
1,000	[2.4] <u>2.5</u>	[2.4] <u>2.5</u>
5,000	[6.8] <u>7.2</u>	[6.8] <u>7.2</u>
10,000	11. <u>5</u>	11. <u>5</u>
25,000	20. <u>2</u>	20. <u>2</u>
50,000	[32] <u>33.8</u>	[32] <u>33.8</u>

75,000	[42] <u>44.3</u>	[42] <u>44.3</u>
100,000	[51] <u>53.7</u>	[51] <u>53.7</u>
250,000	<u>58.1</u>	0.030 grain per standard cubic foot of undiluted exhaust gas on a dry basis
500,000	<u>64.4</u>	
750,000	<u>68.3</u>	
1,000,000	<u>71.1</u>	
2,000,000	<u>78.2</u>	
5,000,000	<u>88.2</u>	

* Existing emission sources are ones for which applications for permits were received prior to July 1, 1973

To determine values of permissible emission rate not shown in table:

For all process weight sources up to 100,000 lb/hr, use $E = 0.024P^{0.67}$

For existing process weight sources in excess of 100,000 lb/hr, use

$E = (39P^{0.082}) - 50$ where E = permissible emission rate; P = process weight in lb/hr.

SUBPART 212-3

REASONABLY AVAILABLE CONTROL TECHNOLOGY FOR MAJOR FACILITIES

Section 212-3.1 Reasonably Available Control Technology for Major Facilities

(a)(1) Owners and/or operators of facilities located in the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury or New York City metropolitan area with an annual potential to emit of 25 tons or more of NOx or 25 tons or more of VOCs must comply with the requirements of this section.

(2) Owners and/or operators of facilities located outside of the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury and New York City metropolitan area with an annual potential to emit of 100 tons or more of NO_x or 50 tons or more of VOCs must comply with the requirements of this section.

(3) Owners and/or operators of facilities located in the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury or New York City metropolitan area with an annual potential to emit of 25 tons or more of nitrogen oxides or facilities located outside of the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury or New York City metropolitan area with an annual potential to emit 100 tons or more of nitrogen oxides may petition the EPA for an exemption from the RACT requirements for NO_x emission points in this section. The facility is eligible for the exemption if the owner and/or operator demonstrates that net ozone air quality benefits are greater in the absence of reductions of NO_x from the facility. Nothing in this paragraph shall exempt owners and/or operators of facilities that petition the Environmental Protection Agency for an exemption from complying with the applicable requirements of this section by the May 31, 1995 deadline absent approval of the exemption.

(b) Owners and/or operators of emission points subject to this Part that emit NO_x or VOCs located at facilities described in Subdivision (a) of this Section must submit a compliance plan to the department by October 20, 1994. The compliance plan must either include the RACT analysis required by Subdivision (c) of this Section or a plan to limit the annual potential to emit below the applicability levels pursuant to Subdivision (d) of this Section.

(c)(1) The compliance plan must identify RACT for each emission point that emits NOx for major NOx facilities or VOC for major VOC facilities. The compliance plan must identify the emission points that do not employ RACT, and a schedule for implementation of RACT must be included in the plan. A RACT analysis is not required for emission points with NOx and VOC emission rate potentials less than 3.0 pounds per hour and actual emissions in the absence of control equipment less than 15.0 pounds per day at facilities located in the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury and New York City metropolitan area. A RACT analysis is not required for emission points with NOx and VOC emission rate potentials less than 3.0 pounds per hour at facilities located outside of the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury and New York City metropolitan area. RACT as approved by the department must be implemented on each emission point subject to this section by May 31, 1995.

(2) Compliance plans that include construction of emission control equipment must include a milestone date no later than December 20, 1994 for submission of a permit to operate to the department for emission control equipment. The compliance plans must include milestone dates for commencement of construction, completion of construction, and completion of emissions testing of emission control equipment.

(3) RACT compliance plans for NOx emission points must include technically feasible control strategies to minimize NOx formation and emission control equipment alternatives. These process specific RACT demonstrations that are acceptable to the department will be submitted to the United States Environmental Protection Agency for approval as a revision to the State Implementation Plan by the department.

(4)(i) VOC emission points that are equipped with a capture system and a control device with an overall removal efficiency of at least 81 percent are equipped with reasonably available control technology.

(ii) Surface coating processes that are not subject to Part 228 of this Title which use a surface coating with a maximum VOC content of 3.5 pounds VOC per gallon as applied (minus water and excluded VOC) as calculated according to the formula in Section 228.2(b)(11) of this Title are equipped with RACT.

(iii) Where the facility owner or operator can show to the satisfaction of the department that an emission point cannot achieve an overall removal efficiency of 81 percent or use coatings not exceeding 3.5 pounds VOC per gallon as applied (minus water and excluded VOC) for reasons of technological or economic feasibility, the department may accept a lesser degree of control upon submission of satisfactory evidence that the facility owner or operator will apply reasonably available control technology. These process specific RACT demonstrations that are acceptable to the department will be submitted to the EPA for approval as a revision to the State Implementation Plan by the department.

(d) The owner or operator of any facility with federally and state enforceable conditions in a permit to operate that limits its annual potential to emit NO_x and VOCs below the applicability levels of Subdivision (a) of this Section by May 31, 1995 is exempt from the RACT analysis and implementation requirements of this Section. Records must be maintained by the owner or operator at the facility on a monthly basis which verify the facility's annual actual emissions. Upon reasonable request, these records must be submitted to the department in a format acceptable to the department. An exceedance of the annual potential to emit conditions for any calendar year must be reported by the owner or operator to the department within 30 days of the end of that calendar year.

(e) Any facility that is subject to this section after May 31, 1995 will remain subject to these provisions even

if the annual potential to emit NOx or VOCs later fall below the applicability threshold.

(f) Owners and/or operators of emission points located at facilities described in Subdivision (a) of this Section that commence construction after August 15, 1994 must submit a RACT demonstration for nitrogen oxides and VOC emissions with each application for a permit to operate. RACT must be implemented on these emission points when operation commences. A RACT analysis is not required for new emission points with NOx and VOC emission rate potentials less than 3.0 pounds per hour and actual emissions in the absence of control equipment less than 15.0 pounds per day at facilities located outside of the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury and New York City metropolitan area.

SUBPART 212-4

CONTROL OF NITROGEN OXIDES FOR HOT MIX ASPHALT PRODUCTION PLANTS

Section 212-4.1 Control of nitrogen oxides for hot mix asphalt production plants

(a) The owner or operator of a hot mix asphalt production plant must comply with the following requirements:

(1) Beginning in calendar year 2011, a tune-up must be performed on the dryer burner on an annual basis at any hot mix asphalt production plant that is in operation during that calendar year.

(2) A plan must be submitted to the department by March 1, 2011 that details the introduction or continuation of methods by which to reduce the moisture content of the aggregate stockpile(s). Such methods must be implemented that year, or the first subsequent year the plant is in operation.

(b)(1) Beginning January 1, 2012, the owner or operator of a hot mix asphalt production plant must analyze the economic feasibility of installing a low NO_x burner when it comes time for the current burner to be replaced. This economic analysis must follow an approach acceptable to the department.

(2) By January 1, 2020, all owners or operators of active plants must have submitted the economic feasibility analysis for the installation of a low NO_x burner. A low NO_x burner must be installed for that operating year in all instances in which it proves feasible.

(3) Hot mix asphalt production plants that are in a state of inactivity on January 1, 2020 and have not otherwise complied with the requirements of this subdivision by that date must do so prior to continued operation.

(4) A similar analysis must be submitted for subsequent burner replacements.

(5) A low NO_x burner is required at any new hot mix asphalt production plant.

(c) For major stationary sources, approved RACT determinations will be submitted by the department to the EPA for approval as separate State Implementation Plan revisions.