

## PART 216

## IRON AND/OR STEEL PROCESSES

(Statutory authority: Environmental Conservation Law, §§ 3-0301, 19-0301, 19-0303)

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**Historical Note**

Part (§§ 216.1-216.4) filed April 28, 1972; repealed, filed Nov. 27, 1972; new (§§ 216.1-216.5) filed July 24, 1979; repealed, new (§§ 216.1-216.10) filed April 23, 1984 eff. 30 days after filing.

**Section 216.1 Definitions.** (a) The definitions in this section are specific to this Part. Additional definitions applying to this Part and other Parts in this Chapter are found in section 200.1.

(b) *Basic oxygen furnace tapping.* The process whereby molten steel is poured from a basic oxygen furnace vessel into a teeming ladle.

(c) *Blast furnace tapping.* The process whereby molten iron and slag drain from a blast furnace tap hole.

(d) *Fluxing.* The process whereby flux materials are added to a basic oxygen furnace vessel during lancing.

(e) *Iron and/or steel processes.* Processes commonly associated with or necessary to production of iron and steel, excluding ferro alloys, including, but not limited to the following:

- (1) materials handling systems, including, but not limited to systems for handling iron ore, ore pellets, coal, limestone, fluxes, scrap steel sinter, coke, steel alloying ingredients, slag and dust;
- (2) blast furnaces for making iron;
- (3) sintering processes such as agglomeration including sintering and handling of agglomerated materials, but excluding iron-ore beneficiating processes and processes occurring prior to iron-ore agglomeration such as washing, screening, crushing, blending and materials handling;
- (4) basic oxygen furnaces open hearths and electric furnaces;
- (5) iron and/or steel furnaces, except furnaces in jobbing foundries;
- (6) molten material transfer and processing operations, including but not limited to teeming, tapping, relading and casting;
- (7) continuous casting operations;
- (8) scarfing and other surface defect removal operations, except those in jobbing foundries;
- (9) scrap preparation, including scrap melting and burning operations;
- (10) molten metal desulfurization operations;

- (11) raw material drying systems; and
- (12) process furnaces, including soaking pits, annealing furnaces, reheating furnaces and other process furnaces using direct heat transfer.
- (f) *Lancing*. The process whereby oxygen is blown into a charged basic oxygen furnace vessel.
- (g) *Lower Orange County metropolitan area*. The area including the towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury.
- (h) *New York City metropolitan area*. All of the city of New York, and Nassau, Suffolk, Westchester and Rockland Counties.
- (i) *Potential to emit*. The maximum capacity of an air contamination source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restriction on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in enforceable permit conditions. Fugitive emissions, to the extent that they are quantifiable, are included in determining the potential to emit.
- (j) *Reasonably available control technology (RACT)*. Lowest emission limit that a particular source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility.

#### Historical Note

Sec. filed April 28, 1972; repealed, new filed May 17, 1972; repealed, filed Nov. 27, 1972; new filed July 24, 1979; repealed, new filed April 23, 1984; amd. filed Aug. 23, 1994 eff. 30 days after filing.

**216.2 Applicability.** This Part applies for all iron and/or steel processes except for ferrous jobbing foundries subject to Part 213 and ferro alloy production furnaces subject to Part 212 of this Title.

#### Historical Note

Sec. filed April 28, 1972; repealed, filed Nov. 27, 1972; new filed July 24, 1979; repealed, new filed April 23, 1984 eff. 30 days after filing.

**216.3 Particulate emissions.** Owners or operators of any iron and/or steel process must not cause or allow emissions of particulates from any confined process to exceed the limits contained in Table 1 of this Part.

#### Historical Note

Sec. filed April 28, 1972; repealed, filed Nov. 27, 1972; new filed July 24, 1979; repealed, new filed April 23, 1984; amd. filed Aug. 23, 1994 eff. 30 days after filing.

**216.4 Opacity of emissions.** (a) Owners or operators of any iron and/or steel process must not cause or allow emissions from that process to have an opacity, determined by the method of subdivision (b) of this section, which exceed the limits contained in Table 2 of this Part, unless exempted under section 216.10(b) or (c) of this Part.

(b) Compliance with the opacity standards will be determined by observing visible emissions discharged during the operation of the iron and/or steel process. The observer must stand at a distance sufficient to provide a clear view of the visible emissions with the sun oriented in the 140° sector of his back. The opacity of emissions will be computed by averaging the results of 24 consecutive opacity observations made at 15-second intervals. For cyclic processes that generate emissions for less than six minutes per cycle, observations will be made only during the operation of the process when visible emissions are generated. A sufficient number of process cycles must be observed to accumulate the required minimum of 24 consecutive opacity readings.

(c) The fugitive opacity limits in Table 2 of this Part are applicable to emissions emanating from building openings.

**Historical Note**

Sec. filed April 28, 1972; repealed, filed Nov. 27, 1972; new filed July 24, 1979; repealed, new filed April 23, 1984 eff. 30 days after filing.

**216.5 Gaseous emissions.**

(a) (1) Owners and/or operators of facilities located in the lower Orange County or New York City metropolitan areas with an annual potential to emit of 25 tons or more of nitrogen oxides or 25 tons or more of volatile organic compounds must comply with the requirements of this section.

(2) Owners and/or operators of facilities located outside of the lower Orange County and New York City metropolitan areas with an annual potential to emit of 100 tons or more of nitrogen oxides or 50 tons or more of volatile organic compounds must comply with the requirements of this section.

(b) Owners and/or operators of emission points subject to this Part which emit nitrogen oxides or volatile organic compounds 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 reasonably available control technology (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 plan must identify reasonably available control technology for each emission point. The compliance plan must identify the emission points which do not employ reasonably available control technology (RACT), and must include a schedule for implementation of RACT. Reasonably available control technology as approved by the department must be implemented on each emission point subject to this section by May 31, 1995.

(2) Compliance plans which include construction of emission control equipment must include a milestone date not later than December 20, 1994 for submission to the department of permit to construct applications. These compliance plans must include milestone dates for commencement of construction, completion of construction, and completion of emissions testing of emission control equipment.

(3) Reasonably available control technology compliance plans for nitrogen oxide emission points must include technically feasible control strategies to minimize nitrogen oxide formation and emission control equipment alternatives.

(4) These process specific RACT demonstrations which 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.

(d) The owner or operator of any facility with federally and state enforceable conditions in certificates to operate which limit the annual potential to emit nitrogen oxides and volatile organic compounds 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 on a monthly basis at the facility 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 after the calendar year ends.

(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 nitrogen oxides or volatile organic compounds later fall below the applicability threshold.

**Historical Note**

Sec. filed July 24, 1979; repealed, new filed: April 23, 1984; Aug. 23, 1994 eff. 30 days after filing.

**216.6 Monitoring operation of basic oxygen furnaces.** This section will apply only to basic oxygen furnaces for which an application for a permit to construct was received by the commissioner after June 11, 1973.

(a) Owners and operators of basic oxygen furnaces must install, maintain and continuously operate the monitoring equipment in a manner acceptable to the commissioner. The methods specified in subpart N and/or revised subpart(s), of part 60 of title 40 of the *Code of Federal Regulations* (see table 1, section 200.9 of this Title) as in effect at the time of commencement of construction and all future technical revisions, additions or corrections made thereto shall be considered acceptable except where the commissioner has required a specific method.

(b) Any application for a certificate to operate a basic oxygen furnace must specify:

- (1) the minimum accuracy of monitoring devices and chart recorders;
- (2) the minimum chart speed;
- (3) the minimum frequency of synchronization and calibration; and
- (4) the method of summarizing and tabulating the information collected.

The commissioner will determine the acceptability of the proposed specifications before issuing the certificate to operate.

(c) All records and summaries, required in connection with the acceptable installation, maintenance and operation methods specified in section 216.6(a) of this Part, must be retained by the source owner for at least three years. These records must be furnished to the commissioner upon request.

**Historical Note**

Sec. filed April 23, 1984; amd. filed Nov. 5, 1984  
eff. Nov. 5, 1984. Amended (a).

**216.7 Monitoring operation of electric arc furnaces.** This section will apply only to electric arc furnaces for which an application for a permit to construct was received by the commissioner after October 21, 1974.

(a) Owners and operators of electric arc furnaces must install, maintain and continuously operate the monitoring equipment in a manner acceptable to the commissioner. The methods specified in subpart AA and/or revised subpart(s), of part 60 of title 40 of the *Code of Federal Regulations* (see table 1, section 200.9 of this Title) as in effect at the time of commencement of construction and all future technical revisions, additions or corrections made thereto shall be considered acceptable except where the commissioner has required a specific method.

(b) Any application for a certificate to operate an electric arc furnace must specify:

- (1) the minimum accuracy of monitoring devices and chart recorders;
- (2) the minimum frequency of calibration required; and
- (3) the method of summarizing and tabulating the information collected.

The commissioner will determine the acceptability of the proposed specifications before issuing the certificate to operate.

(c) All records and summaries, required in connection with the acceptable installation, maintenance and operation methods specified in subdivision (a) of this section, must be retained by the source owner for at least three years. These records must be furnished to the commissioner upon request.

**Historical Note**

Sec. filed April 23, 1984; amd. filed Nov. 5, 1984  
eff. Nov. 5, 1984. Amended (a).

**216.8 Equipment requirements.** (a) Owners and operators of a blast furnace must not cause or allow emissions of particulates unless the blast furnace is equipped with:

(1) an exhaust system to capture and contain the emissions from the iron notch and trough between the furnace and skimmer during the tapping of hot metal. The captured particulate emissions must be conveyed to and be collected by an air cleaning device. In addition to the other requirements of this Part, the exhaust gas must be cleaned by the air cleaning device so that gas released to the atmosphere complies with the emissions limitations in Table 1 of this Part; or

(2) an emission suppression and shrouding containment system extending from the tap hole to the ends of all molten metal and slag runners. Containment of the emissions must be effectively maintained during the tapping operation except when drilling and plugging the tap hole. Suppression measures sufficient to adequately control the emissions must be applied during tapping at the discharge points of the molten metal and slag runners and during drilling and plugging at the tap hole.

(b) In addition to the requirements of paragraph (a)(1) of this section, owners and operators of a blast furnace constructed after December 31, 1981 must not cause or allow emissions of particulates unless the blast furnace is equipped with an exhaust system to capture and contain the emissions from all molten metal and slag runners and discharge points during the tapping of hot metal. The captured particulate emissions must be conveyed to and collected by an air cleaning device. In addition to the other requirements of this Part, the exhaust gas must be cleaned by the air cleaning device so that gas released to the atmosphere complies with the emission limitations in Table 1 of this Part.

(c) Owners and operators of a basic oxygen furnace must not cause or allow emissions of particulates unless the basic oxygen furnace is equipped with both a primary exhaust system to capture and contain all particulate emissions from the lancing and fluxing operations and a secondary hood or a modification of the primary hood to capture and contain all particulate emissions from the tapping operation. The captured particulate emissions must be cleaned by an air cleaning device that causes the exhaust gas emitted to the atmosphere to be in compliance with the emissions limitations in Table 1 of this Part.

(d) Any person who constructs or modifies an iron and/or steel process which is not a confined process must control the emissions of particulates to the outdoor atmosphere using best available control technology.

(e) Control device systems serving more than one emission source must be capable of controlling all simultaneously generated emissions at the limits contained in Table 1 of this Part.

**Historical Note**

Sec. filed April 23, 1984 eff. 30 days after filing.

**216.9 Test procedures.** (a) Compliance with the mass emission standards in Table 1 of this Part will be determined by stack testing in a manner acceptable to the commissioner. Method 5 as described in appendix A of part 60 of title 40 of the *Code of Federal Regulations* (see table 1, section 200.9 of this Title) shall be considered an acceptable method. The sampling rate shall be at least 0.9 dry standard cubic meters per hour (0.53 dry standard cubic feet per minute). The sampling for each run must continue for an integral number of cycles with a total duration of at least 60 minutes except where shorter sampling times, as necessitated by process variables or other factors, are approved by the commissioner. In order to obtain this approval, the source owner must make a written request describing the factors which make sampling for 60 minutes of

operation impractical. This written request may be submitted with the testing notification required by Part 202 of this Title.

(b) For blast furnace tapping operations, sampling must be conducted during the blast furnace tapping period.

(c) For basic oxygen furnaces, sampling of the lancing and fluxing cycles must start at the beginning of the oxygen blow and must terminate at the end of the oxygen blow prior to tapping. Sampling of flue gases must be discontinued whenever oxygen lancing is terminated (such as when the vessel is outside of the main hood for temperature measurements and sampling) and must resume when oxygen lancing is reinitiated. The sampling cycle for tapping must start when the molten steel begins flowing into the ladle and must end when the molten steel flow stops.

**Historical Note**

Sec. filed April 23, 1984; amd. filed Nov. 5, 1984  
ef. Nov. 5, 1984. Amended (a).

**216.10 Exemptions.** (a) A source owner required to install the blast furnace emission reduction equipment specified in section 216.8(a) of this Part, may be exempted from such equipment requirements upon the acceptance by the commissioner of an alternative emission reduction plan submitted by the source owner. The plan shall become effective upon approval by the Environmental Protection Agency. For such a plan to be acceptable to the commissioner, the following requirements must be met:

(1) a complete plant-wide particulate emission inventory for both traditional and nontraditional sources must be included in the alternative emission reduction plan;

(2) the alternative emissions reduction plan must include air quality dispersion modeling results which show attainment of air quality standards off-plant property when the plant-wide emissions inventory required by paragraph (1) of this subdivision is modeled in place of the plan's emission inventory in the State implementation plan;

(3) the emission reductions in the alternative emission reduction plan must be permanent; and

(4) the alternative emission reduction plan must be included in a legally binding agreement which allows future State and Federal enforcement of the credited emission reductions.

(b) Source owners subject to the opacity requirements of section 216.4 of this Part may apply for and be granted an equivalent opacity which will replace the opacity listed in Table 2 of this Part for that source, if either of the following conditions are met:

(1) if the source owner can demonstrate through acceptable tests for any confined source that the source is in compliance with all applicable emission requirements other than the opacity standard and that the source and any associated emission controls are being operated and maintained in a manner acceptable to the commissioner; or

(2) the source owner has obtained approval of an alternative emission reduction plan under subdivision (a) of this section, which covers the source for which equivalent opacity is desired.

(c) For sources, other than blast furnaces equipped with emission shrouding and suppression systems, that are not subject to the mass emission limits shown in Table 1 of this Part, source owners may apply to the commissioner for an opacity standard for that source. The assigned opacity standard shall be based on operation of the source in a manner to minimize the generation of visible emissions consistent with normal operating practices.

TABLE 1  
MAXIMUM ALLOWABLE PARTICULATE  
EMISSION CONCENTRATIONS FOR CONFINED SOURCES

<i>Source category</i>	<i>Date application for permit to construct received</i>	<i>Mass emission limits in grains/cubic foot of exhaust gas at standard conditions on a dry gas basis</i>
Blast furnace cast house	All	0.010
Basic oxygen furnace	On or before 6/11/73	0.050, except 0.010 for any tapping or charging emissions connected to a separate secondary system for control of fugitive emissions.
Basic oxygen furnace	After 6/11/73	0.022, except 0.010 for any tapping or charging emissions connected to a separate secondary system for the control of fugitive emissions.
Electric arc furnace	On or before 7/1/73	0.15
	After 7/1/73, but on or before 10/21/74	0.050
	After 10/21/74	0.0052
Other confined iron and/or steel processes	On or before 7/1/73	0.15
	After 7/1/73	0.050

TABLE 2

MAXIMUM ALLOWABLE VISIBLE EMISSION OPACITY LIMITS

<i>Source category</i>	<i>Date application for permit to construct received</i>	<i>Emission point</i>	<i>Six minute average opacity shall not exceed</i>
Basic oxygen furnace	On or before 6/11/73	Stack	20%
	After 6/11/73	Stack	*10%
	All	Fugitive	20%
Electric arc furnace	On or before 10/21/74	Stack	10%
		Fugitive	20%
	After 10/21/74	Stack	3%
		Fugitives during tapping	40%
		Fugitives during charging	20%
		Fugitives at other times	** 0%
Blast furnaces	All	Stack	*20%
If equipped with exhaust hoods (216.8[a][1] and [b])	All	Fugitives	20%
If equipped with an emission shrouding and suppression system (216.8[a][2])	All	Fugitives during drilling & plugging of taphole	40%
		Fugitives all other times	15%
		Stack and Fugitives	20%
All other iron and/or steel industry sources	All	Stack and Fugitives	20%

\* Except that an average of opacity exceeding 10% but less than 20% may occur once during the steel production cycle.

\*\* Except 10% for emissions associated with particulate storage and transfer equipment collected by an air cleaning device.

**Historical Note**

Sec. filed April 23, 1984 eff. 30 days after filing.

**PART 217**

**MOTOR VEHICLE EMISSIONS**

(Statutory authority: Environmental Conservation Law, subds. 3-0301.1, 19-0301.1, 19-0303.1; Vehicle and Traffic Law, subds. 301[c] and 375.28)

**Subpart 217-1 Emissions from Motor Vehicles Propelled by Gasoline Engines**

**Subpart 217-2 Motor Vehicle Inspection and Maintenance Program Requirements**

**Subpart 217-3 Vehicles Propelled by Diesel Engines**

**Historical Note**

Part (§§ 217.1-217.6) filed April 28, 1972; repealed, new (§§ 217.1-217.7) filed Dec. 16, 1975; repealed, new (§§ 217.1-217.2) filed Jan. 6, 1982; renum. Subpart 217-1, new (Subparts 217-1-217-2) filed Aug. 24, 1990 eff. 30 days after filing.

**Section 217.1**

**Historical Note**

Sec. filed April 28, 1972; amd. filed July 12, 1972; repealed, new filed: Dec. 16, 1975; Jan. 6, 1982; renum. 217-1.1, filed Aug. 24, 1990 eff. 30 days after filing.