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10:35 am J. L. Risa

NR 256



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Anthony S. Earl  
Secretary

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MADISON, WISCONSIN 53701


IN REPLY REFER TO: \_\_\_\_\_

STATE OF WISCONSIN )  
 )  
DEPARTMENT OF NATURAL RESOURCES ) ss

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Anthony S. Earl, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. EL-44-76 was duly approved and adopted by this Department on April 15, 1976. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at Pyare Square Building in the Village of Shorewood Hills, this 22<sup>nd</sup> day of June, 1976.

  
Anthony S. Earl, Secretary

(SEAL)

STATE OF WISCONSIN NATURAL RESOURCES BOARD

.....  
IN THE MATTER of creating chapter NR 256 .  
of the Wisconsin Administrative Code .  
pertaining to Ferroalloy Manufacturing .  
.....

EL-44-76

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD

CREATING RULES

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by sections 147.04, 147.06 and 147.07 and chapter 227, Wisconsin Statutes, the Natural Resources Board hereby creates rules as follows:

## Chapter NR 256

## FERROALLOY MANUFACTURING

NR 256.01	Purpose	NR 256.10	Effluent limitations, best practicable treatment
NR 256.02	Applicability	NR 256.11	Effluent limitations, best available treatment
NR 256.03	Definitions	NR 256.12	Standards of performance
NR 256.04	Compliance with effluent limitations and standards	NR 256.13	Pretreatment standards for new sources
NR 256.05	Modification of effluent limitations		
NR 256.06	Application of effluent limitations and standards		

NR 256.01 Purpose. The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges of process wastes from the ferroalloy manufacturing category of point sources and subcategories thereof.

Note: The authority for promulgation of this chapter is set forth in Wis. Adm. Code chapter NR 205.

History: Cr. eff. 2-28-75.

NR 256.02 Applicability. The effluent limitations, standards of performance, pretreatment standards, and other provisions in this chapter are applicable to pollutants or pollutant properties in discharges of process waste resulting from manufacture in any of the following subcategories.

(1) Open electric furnaces with wet air pollution control devices. This subcategory covers the smelting of ferroalloys in open electric furnaces so constructed or configured that furnace off-gases are burned above the furnace charge level by air drawn into the system and having wet air pollution control devices for cleaning the combustion gases, such as scrubbers or electrostatic precipitators with aqueous sprays.

(2) Covered electric furnaces and other smelting operations with wet air pollution control devices. This subcategory covers the smelting of ferroalloys in electric furnaces known as covered, closed, sealed, semi-covered, or semi-closed furnaces so constructed or configured that the furnace off-gases are not burned prior to collection and cleaning and having wet air pollution control devices for cleaning the collected gases, such as a scrubber or wet baghouse. This subcategory also covers smelting in nonelectric furnaces having wet air pollution control devices, such as aluminothermic or silicothermic smelting or ferromanganese refining. This subcategory does not cover smelting in furnaces using dry dust collection techniques.

(3) Slag processing. This subcategory covers the processing of slag either to concentrate metallic values for return to the furnace or to convert the slag to shotted form for further use.

(4) Calcium carbide in furnaces with wet air pollution control devices as described in subsection (2) above.

(5) Calcium carbide in closed furnaces without wet air pollution control devices, excluding production in open furnaces subject to Wis. Adm. Code chapter NR 230.

(6) Electrolytic process:

(a) Manganese, or

(b) Manganese dioxide.

(7) Chromium, electrolytic process.

NR 256.03 Definitions. The following definitions are applicable to terms used in this chapter. Definitions of other terms and meanings of abbreviations are set forth in Wis. Adm. Code chapter NR 205.

- (1) "Chromium T" means total chromium.
- (2) "Chromium VI" means hexavalent chromium.
- (3) "Cyanide" means total cyanide.
- (4) "Manganese" means total manganese.
- (5) "Mwh" means the megawatt hours of electrical energy consumed in the smelting process.

History: Cr. eff. 2-23-75.

NR 256.04 Compliance with effluent limitations and standards. Discharge of pollutants from facilities subject to the provisions of this chapter shall not exceed, as appropriate:

- (1) By July 1, 1977 effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available;
- (2) By July 1, 1977 pretreatment standards for existing discharges to publicly owned treatment works;
- (3) By July 1, 1983 effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable;
- (4) Standards of performance for new sources; or
- (5) Pretreatment standards for new sources discharging to publicly owned treatment works.

History: Cr. eff. 2-23-75.

NR 256.05 Modification of effluent limitations. (1) Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available may be modified in accordance with this section.

(2) An individual discharger or other interested person may submit evidence to the department that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the effluent limitations. On the basis of such evidence or other available information the department will make a written determination that such factors are or are not fundamentally different for that facility compared to those specified in the applicable sections of the EPA development documents identified in subsection (3) below. If such fundamentally different factors are found to exist, the department shall establish for the discharge effluent limitations in the WPEDES permit either more or less stringent than the limitations in this chapter, to the extent dictated by such fundamentally different factors. Such limitations must be approved by EPA which may approve, disapprove, or specify other limitations.

(3) The EPA development documents for effluent limitations guidelines and new source performance standards, identified by segment title, by EPA document number, and by publication date, applicable in accordance with subsection (2) above are:

Smelting and Slag Processing, EPA 440/1-74-008a, February 1974  
Calcium Carbide, EPA 440/1-75-083, February 1975  
Electrolytic Ferroalloys, EPA 440/1-75-038a, February 1975

(4) Copies of the development documents identified in subsection (3) above are available for inspection at the office of the department of natural resources, the secretary of state's office, and the office of the revisor of statutes, and may be obtained for personal use from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20460.

NR 256.06 Application of effluent limitations and standards.

(1) The effluent limitations and standards set forth in this chapter shall be used in accordance with this section to establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this chapter, except as:

- (a) They may be modified in accordance with section NR 256.05,
- (b) They may be superseded by more stringent limitations and standards necessary to achieve water quality standards or meet other legal requirements, or
- (c) They may be supplemented or superseded by standards or prohibitions for toxic pollutants or by additional limitations for other pollutants required to achieve water quality.

(2) The production basis for application of the limitations and standards set forth in this chapter shall be the daily average of a maximum month in each subcategory subject to the provisions of this chapter.

History: Cr. eff. 2-28-76.

NR 256.10 Effluent limitations, best practicable treatment. The following effluent limitations for all or specific subcategories establish, except as provided in section NR 256.05, the quantity or quality of pollutants or pollutant properties which may be discharged by a facility subject to the provisions of this chapter after application to process wastes of the best practicable control technology currently available.

(1) The pH of all discharges shall be within the range of 6.0 to 9.0

(2) The 30-day average ~~and daily maximum~~ limitations for suspended solids and other parameters for the subcategories identified in section NR 256.02 are set forth in table 1. The limitations are in lbs/Mwh for subcategories (1) and (2) and in lbs/1000 lbs. of kg/1000 kg. of production for ~~subcategory (3)~~ other subcategories.

(3) For nonelectric furnaces in subcategory (2) the limitations of table 1 shall be converted to lbs/1000 lbs. or kg/1000 kg. of production by multiplying by 1.5.

(4) Daily maximum limitations are twice the average limitations set forth in table 1, except that for cyanide and phenols in subcategory (2) they are .009 and .013 respectively.

(5) There shall be no discharge to surface waters resulting from manufacture in subcategory (5).

NR 256.11 Effluent limitations, best available treatment. The following effluent limitations for all or specific subcategories establish the quantity or quality of pollutants or pollutant properties which may be discharged by a facility subject to the provisions of this chapter after application to process wastes of the best available technology economically achievable.

(1) The pH of all discharges shall be within the range of 6.0 to 9.0.

(2) The 30-day average ~~and daily maximum~~ limitations for suspended solids and other parameters for the subcategories identified in section NR 256.02 are set forth in table 2. The limitations are in lbs/Mwh for subcategories (1) and (2) and in lbs/1000 lbs. or kg/1000 kg. of production for ~~subcategory (3)~~ other subcategories.

(3) For nonelectric furnaces in subcategory (2) the limitations of table 2 shall be converted to lbs/1000 lbs. or kg/1000 kg. of production by multiplying by 1.5.

(4) Daily maximum limitations are twice the average limitations set forth in table 2, except that for cyanide and phenols in subcategory (2) they are .001 and .0009 respectively.

(5) There shall be no discharge to surface waters resulting from manufacture in subcategory (5).

NR 256.12 Standards of performance. The following effluent limitations for all or specific subcategories establish the quantity or quality of pollutants or pollutant properties which may be discharged by a facility which is a new source subject to the provisions of this chapter.

(1) The pH of all discharges shall be within the range of 6.0 to 9.0.

(2) The 30-day average ~~and daily maximum~~ limitations for suspended solids and other parameters for the subcategories identified in section NR 256.02 are set forth in table 3. The limitations are in lbs/Mwh for subcategories (1) and (2) and in lbs/1000 lbs. or kg/1000 kg. of production for ~~subcategory (2)~~ other subcategories.

(3) For nonelectric furnaces in subcategory (2) the limitations of table 3 shall be converted to lbs/1000 lbs. or kg/1000 kg. of production by multiplying by 1.5.

(4) Daily maximum limitations are twice the average limitations set forth in table 3, except that for cyanide and phenols in subcategory (2) they are .001 and .0009 respectively.

(5) There shall be no discharge to surface waters resulting from manufacture in subcategory (5).

History: Cr. eff. 2-28-75.

NR 256.13 Pretreatment standards for new sources. The pretreatment standards for discharges to publicly owned treatment works from new sources subject to the provisions of this chapter shall be as set forth in Wis. Adm. Code chapter NR 211, except that section NR 211.30 shall not apply to subcategory (5). In addition the limitations for incompatible pollutants shall be those set forth:

- (1) In section NR 256.12 for subcategories (1) through (3) inclusive, and
- (2) In table 4 for subcategories (4), (6), and (7).

NR 256.14 Pretreatment standards for existing sources. The pretreatment standards for discharges to publicly owned treatment works from existing sources subject to the provisions of this chapter shall be as set forth in Wis. Adm. Code chapter NR 211, except that section NR 211.30 shall not apply to subcategory (5). In addition the limitations for incompatible pollutants shall be those set forth:

- (1) In section NR 256.10 for subcategories (1) through (3) inclusive, and
- (2) In table 4 for subcategories (4), (6), and (7).

Table 1.  
BPT Effluent Limitations

Parameter	Susp. Solids	Cyanide	Chromium T	Chromium VI	Manganese	Ammonia as N	Phenols
Subcategory							
(1)	.352		.007	.0007	.070		
(2)	.461	.005	.009	.0009	.092		.009
(3)	2.659		.053		.532		
(4)	.190	.0028					
(6) (a)	3.389				1.356	20.334	
(6) (b)	.881				.352	5.287	
(7)	2.628		.053		1.055	5.276	

Table 2.  
BAT Effluent Limitations

Parameter	Susp. Solids	Cyanide	Chromium T	Chromium VI	Manganese	Ammonia as N	Phenols
Subcategory							
(1)	.026		.0009	.0001	.0086		
(2)	.035	.0006	.0012	.0001	.012		.0005
(3)	.271		.0054		.054		
(4)	.11	.0028					
(6) (a)	1.695				.339	3.389	
(6) (b)	.441				.088	.881	
(7)	1.324		.027		.265	2.649	

Table 3.  
Standard of Performance Effluent Limitation

Parameter	Susp. Solids	Cyanide	Chromium T	Chromium VI	Managanese	Ammonia as N	Phenols
Subcategory							
(1)	.026		.0009	.0001	.0086		
(2)	.035	.0006	.0012	.001	.012		.0005
(3)	.271		.0054		.054		
(4)	.020	.0005					
(6) (a)	.740				.148	1.481	
(6) (b)	.441				.088	.881	
(7)	.417		.008		.083	.834	

Table 4.  
Pretreatment Standards\*

Parameter	Cyanide	Manganese		Chromium T		Ammonia as N	
		ave.	max.	ave.	max.	ave.	max.
Subcategory							
(4)	0.5						
(6) (a) and (b)		1.356	2.711			20.334	40.667
(7)		1.055	2.111	.053	.106	5.276	10.553

Note: \* In mg/l for cyanide and in lbs/1000/lbs or kg/1000 kg for the other parameters.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on April 15, 1976.

The rules contained herein shall take effect upon publication.

Dated at Madison, Wisconsin 22 June 1976

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By Anthony S. Earl  
Anthony S. Earl, Secretary

(SEAL)