

Chapter NR 232

FERTILIZER MANUFACTURING
(INTERIM EFFLUENT LIMITATIONS)

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Note: Pursuant to chapter 147 Wis. Stats. and under the procedure of section 227.027 Wis. Stats., the department of natural resources has promulgated interim effluent limitations which were effective February 28, 1975 and will remain in effect for one year. These interim effluent limitations will be periodically replaced by permanent limitations.

NR 232.01 Purpose. The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges of process wastes from the fertilizer 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 232.02 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 the manufacture of basic fertilizer materials in any of the following subcategories:

(1) *Phosphates.* This subcategory includes manufacture of sulfuric acid by burning sulfur, wet process phosphoric acid, normal super phosphate, triple super phosphate, and ammonium phosphate.

(2) *Ammonia.*

(3) *Urea.* This subcategory includes separately the manufacture of prilled urea and not-prilled urea.

(4) *Ammonium nitrate.* This subcategory includes separately the manufacture of product in solution or in prilled or granulated form.

(5) *Nitric Acid.*

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

NR 232.03 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) "Product" means as appropriate the anhydrous ammonia content of ammonia compounds, the urea content of urea compounds, or the anhydrous ammonium nitrate content of ammonium nitrate compounds.

(2) "Within the impoundment" means in the water surface area of the impoundment at maximum capacity.

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

NR 232.04 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. 2-28-75.

NR 232.05 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 Basic Fertilizer Chemicals Development Document, EPA 440/1-73-011. If such fundamentally different factors are found to exist, the department shall establish for the discharge effluent limitations in the WPDES 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) Copies of this Development Document, "Basic Fertilizer Chemicals," EPA 440/1-73-011, published November, 1973, 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.

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

NR 232.06 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 232.05.

(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 for a maximum month for the facility in each subcategory subject to the provisions of this chapter.

(3) The discharge limitations for a facility subject to the provisions of this chapter shall be the sum of effluent limitations for each applicable final product subcategory and applicable intermediate ammonia or nitric acid product subcategory.

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

NR 232.07 Discharges from impoundments. (1) A process waste water impoundment which is designed, constructed and operated so as to contain the precipitation from the 10 year, 24 hour rainfall event for the area in which such impoundment is located may discharge that volume of process wastewater which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to such rainfall event when it occurs.

(2) A process wastewater impoundment which is designed, constructed and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event for the area in which such impoundment is located may discharge that volume of process wastewater which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to such rainfall event when it occurs.

(3) During any calendar month, there may be discharged from a process wastewater impoundment a volume of process wastewater equal to the difference between the precipitation for that month which falls within the impoundment and the evaporation for the month. Such process wastewater discharges shall have a pH within the range fo 8.0 to 9.5, concentrations of other parameters not exceeding the following: total phosphorus as phosphorous 35 mg/1 daily average and 70 mg/1 daily maximum, fluoride 15 mg/1 daily average and 30 mg/1 daily maximum, and total suspended solids 25 mg/1 daily average and 50 mg/1 daily maximum.

(4) The 10 year and 25 year, 24 hour rainfall events for the impoundment location shall be as set forth in Wis. Adm. Code section NR 205.05.

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

NR 232.10 Effluent limitations, best practicable treatment. The following effluent limitations for all or specific subcategories when applied in accordance with section NR 232.06 establish, except as provided in section NR 232.05, 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) There shall be no discharge of process waste pollutants resulting from manufacture in the phosphates subcategory except in accordance with section NR 232.07 (1) and (3).

(2) There shall be no discharge of process waste pollutants resulting from manufacture in the nitric acid subcategory.

(3) For subcategories (2), (3), (4), and the pH of all discharges shall be within the range of 6.0 to 9.0.

(4) The 30-day average limitations for specific parameters for subcategories (2), (3), and (4) are set forth in table 1 in lbs/1000 lbs or kg/1000 kg of product.

Table 1

Subcategory	BPT Effluent Limitations		
	Ammonia	Organic Nitrogen	Nitrate
	(as N)	(as N)	(as N)
(2) ammonia	.0625		
(3) urea, prilled	.05	.125	
(3) urea, not prilled	.0375	.0625	
(4) ammonium nitrate solution	.0375		.05
(4) ammonium nitrate prilled or granulated	.11		.1

(5) The daily maximum limitations for subcategories (2), (3), and (4) are two times the 30-day average limitation in paragraph (4) of this section.

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

NR 232.11 Effluent limitations, best available treatment. The following effluent limitations for all or specific subcategories when applied in accordance with section NR 232.06 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) There shall be no discharge of process waste pollutants resulting from manufacture in the phosphates subcategory except in accordance with section NR 232.07 (2).

(2) There shall be no discharge of process waste pollutants resulting from manufacture in the nitric acid subcategory.

(3) For subcategories (2), (3), and (4), the pH of all discharges shall be within the range of 6.0 to 9.0.

(4) The 30-day average limitations for specific parameters for subcategories (2), (3), and (4) are set forth in table 2 in lbs/1000 lbs or kg/1000 kg of product.

Table 2

Subcategory	BAT Effluent Limitation		
	Ammonia	Organic Nitrogen	Nitrate
	(as N)	(as N)	(as N)
(2) ammonia	.025		
(3) urea, prilled	.015	.0375	
(3) urea, not prilled	.015	.025	
(4) ammonium nitrate solution	.0075		.0125
(4) ammonium nitrate prilled or granulated	.0075		.0125

(5) The daily maximum limitations for subcategories (2), (3), and (4) are two times the 30-day average limitations in paragraph (4) of this section.

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

NR 232.12 Standards of performance. The following effluent limitations for all or specific subcategories when applied in accordance with section NR 232.06 establish the quantity or quality of pollutants of pollutant properties which may be discharged by a facility which is a new source subject to the provisions of this chapter.

(1) There shall be no discharge of process waste pollutants resulting from manufacture in the phosphates subcategory except in accordance with section NR 232.07 (2).

(2) There shall be no discharge of process waste pollutants resulting from manufacture in the nitric acid subcategory.

(3) For subcategories (2), (3), and (4), the pH of all discharges shall be within the range of 6.0 to 9.0.

(4) The 30-day average limitations for specific parameters for subcategories (2), (3), and (4) are set forth in table 3 in lbs/1000 lbs or kg/1000 kg of product.

Table 3

Subcategory	Standards of Performance Effluent Limitations		
	Ammonia	Organic Nitrogen	Nitrate
	(as N)	(as N)	(as N)
(2) ammonia	.055		
(3) urea, prilled	.0325	.0625	
(3) urea, not prilled	.0325	.0375	
(4) ammonium nitrate solution	.025		.0125
(4) ammonium nitrate prilled or granulated	.05		.025

(5) The daily maximum limitations for subcategories (2), (3), and (4) are two times the 30-day average limitation in paragraph (4) of this section.

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

NR 232.13 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. In addition the limitations for incompatible pollutants shall be those set forth in section NR 232.12, except as provided in Wis. Adm. Code section NR 211.30 (2). Wastewaters from such new sources may not be discharged to publicly owned treatment works except in compliance with this section.

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