

Chapter NR 258

MEAT PRODUCTS

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NR 258.01 Purpose. The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges from the meat products category of point sources and subcategories thereof.

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

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.02 Applicability. The effluent limitations, standards of performance, and pretreatment standards in this chapter are applicable to pollutants or pollutant properties in discharges resulting from operations of facilities in any of the following subcategories as defined in s. NR 258.03:

- (1) Simple slaughterhouse,
- (2) Complex slaughterhouse,
- (3) Low-processing packinghouse,
- (4) High-processing packinghouse,
- (5) Small processor,
- (6) Meat cutter,
- (7) Sausage and luncheon meat processor,
- (8) Ham processor,
- (9) Canned meat processor, and
- (10) Renderer.

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.03 Definitions. The following definitions are applicable to terms used in this chapter. Definitions of other terms and meanings of abbreviations are set forth in ch. NR 205.

(1) "Slaughterhouse" means a plant that slaughters animals and has as its main product fresh meat as whole, half or quarter carcasses or smaller meat cuts.

(2) "Complex slaughterhouse" means a slaughterhouse that accomplishes extensive byproduct processing, usually at least 3 of such operations as rendering, paunch and viscera handling, blood processing, hide processing, or hair processing.

(3) "Simple slaughterhouse" means a slaughterhouse which accomplishes very limited byproduct processing, if any, usually no more than 2 of such operations as rendering, paunch and viscera handling, blood processing, hide processing, or hair processing.

(4) "Packinghouse" means a plant that both slaughters animals and subsequently processes carcasses into cured, smoked, canned or other prepared meat products.

(5) "High-processing packinghouse" means a packinghouse which processes both animals slaughtered at the site and additional carcasses from outside sources.

(6) "Low-processing packinghouse" means a packinghouse that processes no more than the total animals killed at that plant, normally processing less than the total kill.

(7) "Small processor" means an operation that produces up to 6000 pounds per day of any type or combination of finished products.

(8) "Meat cutter" means an operation which fabricates, cuts, or otherwise produces fresh meat cuts and related finished products from livestock carcasses at rates greater than 6000 pounds per day.

(9) "Sausage and luncheon meat processor" means an operation which cuts fresh meats, grinds, mixes, seasons, smokes, or otherwise produces finished products such as sausage, bologna, and luncheon meats at rates greater than 6000 pounds per day.

(10) "Ham processor" means an operation which manufactures hams alone or in combination with other finished products at rates greater than 6000 pounds per day.

(11) "Canned meat processor" means an operation which prepares and cans meats such as stew, sandwich spreads, or similar products alone or in combination with other finished products at rates greater than 6000 pounds per day.

(12) "Renderer" means an independent or off-site rendering operation conducted separate from a slaughterhouse, packinghouse, or poultry dressing or processing plant which manufactures at rates greater than 75,000 pounds per day meat meal, tankage, animal fats or oils, grease, and tallow, and may cure cattle hides, but excluding marine oils, fish meal, and fish oils.

(13) "LWK" means live weight killed and is the total weight of the total number of animals slaughtered during the time to which the effluent limitations apply, i.e., during any one day or any period of 30 consecutive days.

(14) "ELWK" means equivalent live weight killed and is the total weight of the total number of animals slaughtered at locations other than the slaughterhouse or packinghouse, which animals provide hides, blood viscera or renderable materials for processing at that slaughterhouse, in addition to those derived from animals slaughtered on site.

(15) "Oil and grease" means those components of process wastewater amenable to measurement by the method described in "Methods for Chemical Analysis of Water and Wastes," 1971, EPA, Analytical quality Control Laboratory, page 217. Copies of this publication 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.

(16) "Raw material" or "RM" means for a renderer the basic input materials composed of animal and poultry trimmings, bones, meat scraps, dead animals, feathers and related usable byproducts.

(17) "Tallow" means a product made from beef cattle or sheep fat that has a melting point of 40° C or greater.

(18) "Tankage" means dried animal byproduct residues used in feedstuffs.

(19) "Finished product" means as appropriate;

(a) For a small processor such final manufactured products as fresh meat cuts, hams, bacon or other smoked meats, sausage, luncheon meats, stew, canned meats, or related products,

(b) For a meat cutter such final manufactured products as meat cuts including but not limited to steaks, roasts, chops, or boneless meats.

(c) For a sausage and luncheon meat processor such final manufactured products as fresh meat cuts including steaks, roast, chops, or boneless meats, bacon or other smoked meats (except hams) such as sausage, bologna or other luncheon meats, or related products except canned meats,

(d) For a ham processor such final manufactured products as fresh meat cuts including steaks, roasts, chops, or boneless meat, smoked or cured hams, bacon, or other smoked meats, sausage, bologna or other luncheon meats except canned meats, or

(e) For a canned meat processor such final manufactured products as fresh meat cuts, including steaks, roasts, chops, or boneless meat, hams, bacon, or other smoked meats, sausage, bologna, or other luncheon meats, stews, sandwich spread, or other canned meats.

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.04 Compliance with effluent limitations and standards. Discharge of pollutants from facilities subject to the provisions of this chapter may 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, 1983 effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable;

(3) Pretreatment standards for discharges to publicly owned treatment works;

(4) Standards of performance for new sources.

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76; r. and recr. Register, August, 1983, No. 332, eff. 9-1-83.

NR 258.05 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 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 appropriate one of the development documents: Red Meat Processing, EPA 440/1-74-012a, February 1974, Processor, EPA 440/1-75-031-c, January 1975, or Renderer, EPA 440/1-74-031-d, January 1975. 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. Copies of these Development Documents 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. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.06 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 s. NR 258.05

(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 annual production in each subcategory subject to the provisions of this chapter.

(3) The effluent limitations of ss. NR 258.10, 258.11, and 258.12 shall be applied to discharges from any single facility subject to the provisions of this chapter by:

(a) Determining to which of subcategories (1) to (10) such facility belongs,

(b) Calculating the discharge limitations from the appropriate effluent limitations for such category on the basis of the production or the LWK of animals slaughtered in said facility, and

(c) For subcategories (1) through (4) increasing such discharge limitations by the amounts calculated using appropriate effluent limitations for rendering and hide or blood processing operations on the basis of the ELWK of raw materials so processed resulting from animals slaughtered elsewhere than in said facility.

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.10 Effluent limitations, best practicable treatment. The following effluent limitations when applied in accordance with s. NR 258.06 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 practicable control technology currently available.

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

(2) The fecal coliform of all discharges except those from the small processor subcategory shall not exceed an MPN of 400/100ml.

(3) The BOD₅, suspended solids, and oil and grease 30 day average limitations are set forth in table 1. The daily maximum limitations are 2 times the 30 day average values. The limitations of table 1 may be modified for the renderer subcategory in accordance with sub. (4).

(4) For a renderer who conducts hide curing the effluent limitations for the renderer subcategory in table 1 shall be increased by adding;

(a) To the limitation for BOD₅ the value resulting from dividing the number of hides cured by their weight in pounds and multiplying by 17.6, or by their weight in kilograms and multiplying by 8.0, and

(b) To the limitations for suspended solids the value resulting from dividing the number of hides cured by their weight in pounds and multiplying by 24.2, or by their weight in kilograms and multiplying by 11.0.

Table 1

Subcategory	BOD ₅	BPT Effluent Limitations	
		Suspended Solids (in lbs/1000 lbs. or kg/1000 kg/LWK)	Oil and Grease
Simple slaughterhouse	0.12	0.20	0.06
Complex slaughterhouse	0.21	0.25	0.08
Low-processing packinghouse	0.17	0.24	0.08
High-processing packinghouse	note (1)	note (2)	0.13 (in lbs/1000 lbs. or kg/1000 kg. of finished product)
Small processor	1.0	1.2	0.5

Meat cutter	0.018	0.022	0.006
Sausage & luncheon meat processor	0.28	0.34	0.10
Ham processor	0.31	0.37	0.11
Canned meat processor	0.37	0.45	0.13
		(in lbs/1000 lbs. or kg/1000 kg. of RM)	
Renderer	0.17	0.21	0.10
		(in lbs/1000 lbs. or kg/1000 kg. ELWK)	
Operations			
Hide processing	0.02	0.04	
Blood processing	0.02	0.04	
Rendering, wet or low temperature	0.03	0.06	
Rendering, dry	0.01	0.02	

Note: (1) Limitation is calculated using the formula $0.21 \times 0.23(V-0.4)$ where V is the lb processed meat products/lb LWK.

(2) Limitation is calculated using the formula $0.28 \times 0.30(V-0.4)$ where V is the same as note (1).

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.11 Effluent limitations, best available treatment. The following effluent limitations when applied in accordance with s. NR 258.06 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) The pH of all discharges shall be within the range of 6.0 to 9.0.
- (2) The fecal coliform of all discharges except those from the small processor subcategory shall not exceed an MPN of 400/100 ml.
- (3) The oil and grease content of discharges for the first 4 subcategories of table 2 shall not exceed 10 mg/l.
- (4) The ammonia content of all discharges except for the small processor and renderer subcategories shall not exceed 4 mg/l on a 30-day average basis nor a daily maximum of 8 mg/l. The efflu-

ent limitation for ammonia for discharges from the renderer subcategory shall be a 30 day average of 0.02 and a daily maximum of 0.04 lbs/1000 lbs. or kg/1000 kg. of raw material.

(5) The BOD₅, suspended solids, and oil and grease 30 day average limitations are set forth in table 2. The daily maximum limitations are 2 times the 30 day average values. The limitations of table 2 may be modified for the renderer subcategory in accordance with sub. (6).

(6) For a renderer who conducts hide curing the effluent limitations for the renderer subcategory in table 2 shall be increased by adding;

(a) To the limitation for BOD₅ the value resulting from dividing the number of hides cured by their weight in pounds and multiplying by 7.9, or by their weight in kilograms and multiplying by 3.6 and

(b) To the limitations for suspended solids the value resulting from dividing the number of hides cured by their weight in pounds and multiplying by 13.6, or by their weight in kilograms and multiplying by 6.2.

Table 2

Subcategory	BOD ₅	BAT Effluent Limitations	
		Suspended Solids (in lbs/1000 lbs. or kg/1000 kg. LWK)	Oil and Grease
Simple slaughterhouse	0.03	0.05	
Complex slaughterhouse	0.04	0.07	
Low-processing packinghouse	0.04	0.06	
High-processing packinghouse	note (1)	note (2)	
		(in lbs/1000 lbs. or kg/1000 kg. of finished product)	
Small processor	0.5	0.6	0.25
Meat cutter	0.009	0.012	0.006
Sausage & luncheon meat processor	0.14	0.19	0.10
Ham processor	0.16	0.21	0.11
Canned meat processor	0.17	0.22	0.13
		(in lbs/1000 lbs. or kg/1000 kg. of RM)	
Renderer	0.07	0.10	0.05
		(in lbs/1000 lbs. or kg/1000 kg. ELWK)	
Operations			
Blood processing	0.007	0.013	
Rendering, wet or low temperature	0.01	0.02	
Rendering, dry	0.003	0.007	

Note: (1) The limitation is calculated using the formula $0.07 \times 0.08(V-0.4)$ where V is the lb processed meat products/lb LWK. (2) The limitation is calculated using the formula $0.09 \times 0.10(V-0.4)$ where V is the same as note (1).

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.12 Standards of performance. The following effluent limitations when applied in accordance with s. NR 258.06 establish the quantity or quality of pollutants or pollutant properties which may be discharged by 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 fecal coliform of all discharges except those from the small processor subcategory shall not exceed an MPN of 400/100 ml.
- (3) The BOD₅, suspended solids, oil and grease, and ammonia

30 day average limitations are set forth in table 3. The daily maximum limitations are 2 times the 30 day average values.

(4) For a renderer who conducts hide curing the effluent limitations for the renderer subcategory in table 3 shall be increased by adding;

(a) To the limitation for BOD₅ the value resulting from dividing the number of hides cured by their weight in pounds and multiplying by 7.9, or by their weight in kilograms and multiplying by 3.6, and

(b) To the limitations for suspended solids the value resulting from dividing the number of hides cured by their weight in pounds and multiplying by 13.6, or by their weight in kilograms and multiplying by 6.2.

Table 3

Subcategory	BOD ₅	Standards of Performance Effluent Limitations		
		Suspended Solids	Oil and Grease	Ammonia
		(in lbs/1000 lbs. LWK, or kg/1000 kg. LWK)		
Simple slaughterhouse	0.12	0.20	0.06	0.17
Complex slaughterhouse	0.21	0.25	0.08	0.24
Low-processing packinghouse	0.17	0.24	0.08	0.24
High-processing packinghouse	note (1)	note (2)	0.13	0.40
		(in lbs/1000 lbs. or kg/1000 kg. of finished product)		
Small processor	0.5	0.6	0.25	
Meat cutter	0.015	0.018	0.006	
Sausage & luncheon meat processor	0.24	0.29	0.10	
Ham processor	0.31	0.37	0.11	
Canned meat processor	0.37	0.45	0.13	
		(in lbs/1000 lbs. or kg/1000 kg. of RM)		
Renderer	0.17	0.21	0.10	0.17
		(in lbs/1000 lbs. ELWK, or kg/1000 kg. ELWK)		
Operations				
Hide processing	0.02	0.04		
Blood processing	0.02	0.04		0.03
Rendering, wet or low temperature	0.03	0.06		0.05
Rendering, dry	0.01	0.02		0.02

Note: (1) Limitation is calculated using the formula $0.21 + 0.23(V-0.4)$ where V is the lb processed meat products/lb LWK.

Limitation is calculated using the formula $0.28 + 0.30(V-0.4)$ where V is the same as note (1).

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76.

NR 258.13 Pretreatment standards. The pretreatment standards for discharges to publicly owned treatment works from

sources subject to the provisions of this chapter shall be as set forth in ch. NR 211.

History: Cr. Register, June, 1976, No. 246, eff. 7-1-76; r. and recr. Register, August, 1983, No. 332, eff. 9-1-83