

Chapter NR 285

PULP AND PAPER MANUFACTURING

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NR 285.01 Purpose. The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges of process wastes from the pulp and paper industry 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 285.02 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 in any of the following subcategories of:

- (1) Pulp and paper by,
 - (a) Unbleached kraft mills manufacturing linerboard and sack papers,
 - (b) Sodium base neutral sulphite semi-chemical mills,
 - (c) Ammonia base neutral sulphite semi-chemical mills,
 - (d) Unbleached kraft-neutral sulphite semi-chemical mills having cross recovery processes, and
 - (e) Paperboard mills using waste paper as the major raw material;
- (2) Paper by,
 - (a) Building paper and roofing felt mills manufacturing saturating, deadening, flooring, and all other papers known as building papers or roofing felts.

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

NR 285.03 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) "Settleable solids" means the amount of settleable matter present in an effluent sample as determined by the test described in "Standard Methods for the Examination of Water and Waste Water," 13th edition (1971). Copies are available for inspection at the office of the department of natural resources, the secretary of state's office, and the office of the

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revisor of statutes, and may be obtained for personal use from the American Public Health Association, 1015 Eighteenth Street, NW, Washington, DC 20036.

(2) "TSS" means total suspended nonfilterable solids as measured by the technique using glass fiber disks specified in "Standard Methods for the Examination of Water and Waste Water," 13th edition (1971). Copies are available as set forth in s. NR 285.03(1).

(3) "Color" means the color as measured by the testing method described in "Technical Bulletin 253" issued December 1971. Copies of this bulletin 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 National Council of the Paper Industry for Air and Stream Improvement, 260 Madison Avenue, New York, New York 10016.

(4) "Production" means, as appropriate, the daily average of annual production of the paper machine at the off-machine moisture content, or for facilities producing pulp only, the daily average of annual pulp production on the conventional air dry basis having 10% moisture.

(5) "NSSC" means the neutral sulphite semi-chemical process.

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

NR 285.04 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 285.05 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 "Unbleached Kraft and Semicheical Pulp" and Builders Paper and Roofing Felt Development

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Documents, EPA 440/1-74-025-a and EPA 440/1-74-026-a. 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 these Development Documents, "Unbleached Kraft and Semichemical Pulp" and "Builders Paper and Roofing Felt," EPA 440/1-74-025-a and EPA 440/1-74-026-a respectively, both published January, 1974, 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 285.06 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 285.05,

(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.

(3) For facilities subject to effluent limitations in more than one subcategory, the discharge limitations shall be the aggregate of limitations applicable to the total production covered by each subcategory.

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

NR 285.10 Effluent limitations, best practicable treatment. The following effluent limitations for all or specific subcategories when applied in accordance with s. NR 285.06 establish, except as provided in s. NR 285.05, 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 limitations for BOD₅ and suspended solids are set forth in table 1.

Table 1

Subcategory	BPT Effluent Limitations	
	BOD	TSS
(1)(a) Unbleached kraft	5.6	12.0
(b) sodium base NSSC	8.7	11.0
(c) ammonia base NSSC	8.0	10.0
(d) unbleached kraft NSSC	8.0	12.5
(e) paperboard	3.0	5.0
(2)(a) building and roofing paper	6.0	6.0

Limitations are in pounds per ton. For kg/1000 kg divide by 2. Daily limitations are 2 times the values shown for subcategory (1) and 1.67 times the values shown for subcategory (2).

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

NR 285.11 Effluent limitations, best available treatment. The following effluent limitations for all specified subcategories when applied in accordance with s. NR 285.06 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 30-day average and daily maximum limitations for BOD₅ and suspended solids and color are set forth in table 2.

Table 2

Subcategory	BAT Effluent Limitations		
	BOD	TSS	Color
(1)(a) unbleached kraft	2.7	3.7	20
(b) sodium base NSSC	4.5	5.0	75% removal
(c) ammonia base NSSC	6.4	5.2	75% removal
(d) unbleached kraft NSSC	3.2	4.2	25
(e) paperboard	1.3	1.6	
(2)(a) building and roofing paper*	2.0	2.0	

*settleable solids shall not exceed 0.2 ml/l.

Limitations are in pounds per ton. For kg/1000 kg divide by 2. Daily maximum limitations for subcategory (1) are 2 times the values shown for BOD and TSS and 1½ times the values shown for color in subcategories (1)(a) and (d). Daily maximum limitations for subcategory (2) are 1.75 times the values shown.

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

NR 285.12 Standards of performance. The following effluent limitations for all or specific subcategories when applied in accordance with s. NR 285.06 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 limitation for BOD₅, suspended solids and color are set forth in table 3.

Subcategory	Standards of Performance Effluent Limitations		
	BOD	TSS	Color
(1)(a) unbleached kraft	3.1	7.5	20
(b) sodium base NSSC	5.2	7.7	
(c) ammonia base NSSC	7.5	7.5	
(d) unbleached kraft NSSC	3.8	8.0	25
(e) paperboard	1.5	4.0	
(2)(a) building and roofing paper*	2.0	2.0	

*settleable solids shall not exceed 0.2 ml/l.

Limitations are in pounds per ton. For kg/1000 kg divide by 2. Daily maximum limitations are 2 times the values shown for BOD and TSS and 1 1/2 times the values shown for color for subcategory (1) and 1.75 times the values shown for subcategory (2).

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

NR 285.13 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.

NR 285.14 Pretreatment standards for existing sources. History: Cr. Register, June, 1976, No. 246, eff. 7-1-76; r. Register, August, 1983, No. 332, eff. 9-1-83.