



NR 280

*Filed April 29, 1976
11:20 am C. L. Folsom*

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Anthony S. Earl
Secretary

BOX 450
MADISON, WISCONSIN 53701

IN REPLY REFER TO: _____

STATE OF WISCONSIN)
) ss
DEPARTMENT OF NATURAL RESOURCES)

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-28-76 was duly approved and adopted by this Department on February 19, 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 13TH day of April, 1976.

Anthony S. Earl

Anthony S. Earl, Secretary

(SEAL)

STATE OF WISCONSIN NATURAL RESOURCES BOARD

.....
IN THE MATTER of creating Chapter NR 280 .
of the Wisconsin Administrative Code .
pertaining to plastics and synthetics .
.....

EL-28-76

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD

CREATING RULES

Pursuant to authority vested in the State of Wisconsin Natural Resources Board by sections 147.04(2), 147.06 and 147.07 and chapter 227, Wisconsin Statutes, the Natural Resources Board hereby creates rules as follows:

SECTION 1 - Chapter NR 280 is created to read:

Chapter NR 280

PLASTICS AND SYNTHETICS

NR 280.01	Purpose	NR 280.10	Effluent limitations, best practicable treatment
NR 280.02	Applicability	NR 280.11	Effluent limitations, best available treatment
NR 280.03	Definitions	NR 280.12	Standards of performance
NR 280.04	Compliance with effluent limitations and standards	NR 280.13	Pretreatment standards for new sources
NR 280.05	Modification of effluent limitations		
NR 280.06	Application of effluent limitations and standards		

NR 280.01 Purpose. The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges of process wastes from the synthetic resin 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 280.02 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 and associated processing of plastics and synthetics in the following subcategories:
- (1) Polyvinyl chloride produced from vinyl chloride by:
 - (a) Suspension polymerization,
 - (b) Emulsion polymerization, and
 - (c) Bulk polymerization;
 - (2) Polyvinyl acetate produced by polymerization of vinyl acetate;
 - (3) Polystyrene produced from styrene by:
 - (a) The suspension polymerization process, and
 - (b) The bulk polymerization process;
 - (4) Polypropylene produced by the polymerization of propylene.
 - (5) Polyethylene produced from ethylene by:
 - (a) The polymerization process to produce low density polyethylene,
 - (b) The solvent process to produce high density polyethylene, and
 - (c) The polyform process to produce high density polyethylene;
 - (6) Cellophane produced by processing wood pulp;
 - (7) Rayon produced by processing wood pulp;
 - (8) ABS and SAN resins which are respectively acrylonitrile-butadiene-styrene and styrene-acrylonitrile resins produced by the polymerization reactions of acrylonitrile, butadiene and styrene;
 - (9) Polyester materials produced by the polymerization reaction of dihydric alcohol and terephthalic acid or dimethyl terephthalate to make:
 - (a) Polyester resin by batch processing,
 - (b) Polyester fiber by batch processing,
 - (c) Polyester resin and fiber by continuous processing, and
 - (d) Polyester resin and fiber by batch processing;
 - (10) Nylon 66 materials produced by the polymerization reaction of hexamethylenediamine and adipic acid to make:
 - (a) Nylon 66 resin,
 - (b) Nylon 66 fiber, and
 - (c) Nylon 66 resin and fiber;
 - (11) Nylon 6 materials produced by the polymerization reaction of caprolactam to make:

NR 280.05 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 Synthetic Resins Development Document, EPA 440/1-74-010-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 this Development Document, "Synthetic Resins" EPA 440/1-74-010-a, published March, 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. eff. 2-28-75.

NR 280.06 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 280.05.

(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 the 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) For a facility manufacturing silicones the total discharge limitations shall be determined:

(a) For facilities manufacturing fluids only from the limitations for subcategory (21)(a) in the appropriate of tables 1, 2, or 3;

(b) For facilities manufacturing greases, emulsions, rubbers, and resins in addition to fluids from the sum of the limitations for subcategories (21)(a) and (21)(b) in table 1;

(c) For facilities manufacturing coupling agents in addition to the products of (b) above from the sum of the limitations for subcategories (21)(a), (21)(b), and (21)(c) in table 1; and

(d) For facilities manufacturing greases, emulsions, rubbers, resins, and coupling agents in addition to fluids from the sum of the limitations for subcategories (21)(a) and (21)(b) in the appropriate of table 2 or table 3.

Table 1
BPT EFFLUENT LIMITATIONS

Subcategory (A)	BOD		Susp. Solids		Other (B)		
	Ave.	Max.	Ave.	Max.	Ave.	Max.	
(1) (a)	.36	.70	.99	1.8	-	-	
(b)	.13	.26	.36	.65	-	-	
(c)	.06	.12	.16	.29	-	-	
(2)	.20	.39	.55	1.0	-	-	
(3) (a)	.22	.43	.61	1.1	.0023	.0046	Cr
(b)	.04	.08	.11	.20	-	-	
(4)	.42	.81	1.16	2.1	-	-	
(5) (a)	.20	.39	.55	1.0	-	-	
(b)	.30	.58	.83	1.5	.0031	.0062	Cr
(c)	.052	.10	.14	.25	-	-	
(6)	8.7	17.8	16	29.1	-	-	
(7)	4.8	10.0	8.8	16.0	.534	.91	Zn
(8)	.63	1.30	1.16	2.10	.0044	.0088	Cr
(9) (a)	.78	1.4	.52	.95	-	-	
(b)	.78	1.4	.52	.95	-	-	
(c)	.78	1.4	.52	.95	-	-	
(d)	1.56	2.8	1.04	1.9	-	-	
(10) (a)	.66	1.2	.44	.80	-	-	
(b)	.58	1.1	.39	.70	-	-	
(c)	1.24	2.3	.83	1.5	-	-	
(11) (a)	3.71	6.8	2.48	4.5	-	-	
(b)	1.90	3.5	1.27	2.3	-	-	
(c)	5.61	10.3	3.75	6.8	-	-	
(12) (a)	4.13	7.5	2.75	5.0	-	-	
(b)	4.13	7.5	2.75	5.0	-	-	
(c)	8.26	15.0	5.5	10.0	-	-	
(13) (reserved)							
(14)	.20	.39	.55	1.0			
(15)	3.6	7.0	9.9	18.0	.6	1.2	F
(16)	.40	.78	1.1	2.0	.5	1.0	O
(17)	.33	.60	.22	.40			
(18)	14	26	9.4	17			
(19)	.66	1.2	.44	.80			
(20)	.78	1.4	.52	.95			
(21) (a)	1.0	1.9	.69	1.52	.005	.01	Cu
(b)	13.2	24	8.8	16	.067	.13	Cu
(c)	8.2	15	5.4	10	.042	.084	Cu

NOTE (A): As defined in section NR 280.02.

NOTE (B): Other parameters identified as Cr (total chromium), Zn (zinc), F (fluorides), O (oil and grease), and Cu (copper).

Table 3
STANDARDS OF PERFORMANCE EFFLUENT LIMITATIONS

Subcategory (A)	BOD		COD		Susp. Solids		Other (b)		
	Ave.	Max.	Ave.	Max.	Ave.	Max.	Ave.	Max.	
(1) (a)	.19	.37	.89	1.70	.13	.19	-	-	
(b)	.13	.26	.61	1.20	.092	.14	-	-	
(c)	.06	.12	.28	.54	.042	.06	-	-	
(2)	.18	.35	.84	1.6	.13	.19	-	-	
(3) (a)	.22	.43	1.03	2.0	.16	.24	.0023	.0046	Cr
(b)	.04	.08	.19	.37	.028	.04	-	-	
(4)	.22	.43	1.47	2.9	.16	.24	-	-	
(5) (a)	.18	.35	1.8	3.5	.13	.19	-	-	
(b)	.3	.58	1.6	3.1	.21	.31	.0031	.0062	Cr
(c)	.052	.10	.28	.54	.036	.05	-	-	
(6)	3.6	7.41	48	98	2.27	3.3	-	-	
(7)	2.0	4.17	47	97	1.28	.19	.075	.15	Zn
(8)	.43	.88	3.1	6.5	.27	.40	.0040	.0080	Cr
(9) (a)	.44	.79	4.0	7.3	.13	.19	-	-	
(b)	.44	.79	4.0	7.3	.13	.19	-	-	
(c)	.25	.46	2.32	4.2	.078	.12	-	-	
(d)	.87	1.58	8.0	14.6	.27	.40	-	-	
(10) (a)	.37	.67	2.6	4.8	.11	.16	-	-	
(b)	.32	.58	2.3	4.2	.10	.15	-	-	
(c)	.69	1.25	4.95	9.0	.21	.31	-	-	
(11) (a)	1.51	2.75	15.7	28.6	.47	.69	-	-	
(b)	.78	1.42	8.1	14.7	.24	.35	-	-	
(c)	2.29	4.17	23.9	43.4	.71	1.10	-	-	
(12) (a)	1.15	2.08	11	20	.35	.51	-	-	
(b)	1.15	2.08	11	20	.35	.51	-	-	
(c)	2.29	4.17	22	40	.71	1.1	-	-	
(13) (Reserved)									
(14)	.18	.35	1.8	3.5	.13	.19	-	-	
(15)	.80	1.6			.57	.83	.67	1.3	F
(16)	.04	.08	.07	.14	.03	.04	.017	.033	O
(17)	.02	.03	.11	.20	.006	.008	-	-	
(18)	6	11	30	54	1.8	2.7	-	-	
(19)	.37	.67			.11	.17	-	-	
(20)	.44	.800	6.5	12	.14	.20	-	-	
(21) (a)	.57	1.0	4.7	8.5	.18	.26	.0026	.0052	Cu
(b)	5.5	10	45	82	1.7	2.5	.025	.05	Cu

NOTE (A): As defined in section NR 280.02.

NOTE (B): Other parameters identified as Cr (total chromium), Zn (zinc), F (fluorides), O (oil and grease), and Cu (copper).