



NR 229

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

L. P. Voigt  
Secretary

BOX 450  
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, L. P. Voigt, Secretary of the Department of Natural Resources and custodian of the official records, do hereby certify that the annexed copy of Natural Resources Board Order No. W-11-74 (E) has been compared by me with the original order on file in this office of the Department of Natural Resources, Madison, Wisconsin, and that the same is a true copy thereof, and of the whole of such original order; that said order was duly passed and published as set forth therein.

IN TESTIMONY WHEREOF, I have hereunto set my hand at the Pyare Square Building in the City of Madison, this 17<sup>th</sup> day of January, 1974.

  
L. P. Voigt, Secretary

(SEAL)

STATE OF WISCONSIN NATURAL RESOURCES BOARD

.....  
IN THE MATTER of creating NR 229 .  
of the Wisconsin Administrative .  
Code .  
.....

ORDER NUMBER W-11-74 (E)

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(5) and 227.027, Wisconsin Statutes, the State of Wisconsin Natural Resources Board hereby creates rules as follows:

CHAPTER NR 229  
Interim Effluent Limitations for the  
Asbestos Products, Flat Glass, Cement,  
Concrete, Lime and Gypsum Industries  
Wisconsin Pollutant Discharge Elimination System

NR 229.01 Purpose. The purpose of this chapter is to establish interim effluent limitations for discharges from industrial point sources identified herein as authorized by section 147.04(5), Wisconsin Statutes.

229.02 Applicability. These limitations apply to Standard Industrial Classification Codes 3211, 3241, 3271, 3273, 3274, 3275, and 3292 which include the following categories: asbestos products; flat glass; flat glass products made of purchased glass; cement, hydraulic; concrete block and brick; concrete products other than block and brick; ready mix concrete; lime and gypsum products.

229.03 Application of Interim Limitations. The limitations shown for the cement industry are incomplete and require the addition of limitations for pH, heavy metals, and runoff from storage piles. These limitations apply to process water only and not to cooling water. Concrete Products and Ready Mix Concrete are generally classed as "job-shop operations" wherein wide variations in production levels occur, therefore, these industries are limited on concentration only.

229.04 Effluent Characteristics and Abatement Models. The industries in these categories grind, heat, crush, and otherwise process basically inert mineral substances to produce the final end product. As a result, the major pollutants are suspended solids consisting of mineral fragments. These can be removed adequately by sedimentation, with the addition of coagulants as required. Acceptable criteria which are available for construction of settling ponds should be utilized in the design and construction of such ponds.

Dissolved inorganic ions, chiefly sulfate, leached from the raw material or from air-pollution control devices, constitute the second major class of pollutants. Significant reduction of these inorganics can be realized by modifications in the process.

Dissolved heavy metals may result from leaching of raw materials, from plating operations, or from reagents added to cooling or process waters. Heavy metals are especially troublesome in cement plants utilizing oyster or clam shells as raw materials.

The specified levels can be achieved by a combination of process modifications and metal precipitation. Oil is used primarily as a binder and/or emulsifier in the manufacture of both asbestos and glass.

Processes should include maximum practical recirculation and reuse of cooling waters, condensates, cleaning, washing and other process flows should be practiced. Process water from lime and gypsum manufacturing should be used for hydrator supply, scrubbing, and consumptive use.

Water use, and time of contact of water with leachable substances, should be reduced to a minimum. Frequent and unnecessary spillage, overflows, excess running water, and inefficient handling and washing methods should be eliminated.

Asbestos products facilities should recycle mix and curing water to the maximum extent possible.

Concrete products and Ready Mix Concrete facilities should recycle their wash water to the maximum extent possible.

The treatment system model used in the development of these limitations consisted of:

- equilization of flow,
- sedimentation (with coagulants where required),
- neutralization, and
- metal precipitation (where required).

229.05 Table of Interim Effluent Limitations (In Pounds per Production Unit,  
Except Concrete Products and Ready Mix)

<u>Subcategory</u>	<u>Production Unit</u>	<u>TSS (1)</u>	<u>COD (2)</u>	<u>Total Phosphorus</u>
(1) Asbestos products	1000 tons			
a. insulation		99	99	
b. asbestos paper		152	152	
c. pipe and siding		200	200	
(2) Flat Glass products				
a. Float glass	1000 tons	5	5	0.25
b. Plate glass, rolled laminated, tempered	1000 sq.ft.	84	84	4.2 (3)
c. Mirrored glass	1000 sq.ft.	0.2	0.2	0.01
(3) Cement, Hydraulic				
a. With leaching	1000 bbl.	2		
(1) dry process		25	25	
(2) wet process		7	7	
b. Without leaching		No Discharge		
(4) Concrete Products	Concentration	20 mg/l	20 mg/l	
(5) Ready Mix Concrete	Concentration	20 mg/l	20 mg/l	
(6) Gypsum Products	1000 tons	4	4	
(7) Lime Manufacture	1000 tons	50	50	


NOTES:

- (1) TSS means total suspended solids
- (2) COD means chemical oxygen demand
- (3) Pounds phosphorus based on 1000 tons with oil and grease limited to 8.4 pounds on the same basis

The rules contained herein shall take effect upon publication on  
February 1, 1974.

Dated at Madison, Wisconsin JAN 17 1974

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By   
L. P. Voigt, Secretary

(SEAL)



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

L. P. Voigt  
Secretary

January 16, 1974

BOX 450  
MADISON, WISCONSIN 53701

IN REPLY REFER TO: 1020

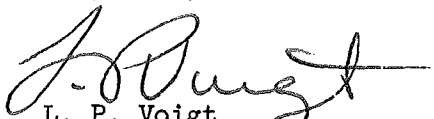
Mr. James J. Burke  
Revisor of Statutes  
411 West  
C A P I T O L

Dear Mr. Burke:

Enclosed is State of Wisconsin Natural Resources Board Order No. W-11-74 (E) for filing as required by section 147.04(5), Wisconsin Statutes.

These are interim rules concerning Effluent Limitations for the Asbestos Products, Flat Glass, Cement, Concrete, Lime and Gypsum Industries adopted pursuant to section 227.027, Wisconsin Statutes, and are effective the day of publication, in the official state paper, which is February 1, 1974.

Very truly yours,

  
L. P. Voigt  
Secretary

Enc.