

CR 89-666



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy 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. WW-11-89 was duly approved and adopted by this Department on October 26, 1989. 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 the Natural Resources Building in the City of Madison, this 13th day of March, 1990.

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Bruce B. Braun
Bruce B. Braun, Deputy Secretary

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1. The first part of the document is a list of the names of the members of the committee who have been appointed to investigate the matter.

2. The second part of the document is a list of the names of the members of the committee who have been appointed to investigate the matter.

ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
CREATING RULES

.
IN THE MATTER of creating .
ch. NR. 264 of the Wisconsin .
Administrative Code pertaining .
to effluent limitations and .
pretreatment standards for the .
electrical and electronic .
components industry .
.

WW-11-89

Analysis Prepared by Department of Natural Resources

Statutory authority: ss. 147.035, 147.04, 147.06, 147.07, and 227.11(2)(a), Stats.
Statutes Interpreted: ss. 147.035, 147.04, 147.06, and 147.07, Stats.

The Federal Water Pollution Control Act amendments of 1972 established a comprehensive program to "restore and maintain the chemical, physical and biological integrity of the Nation's waters" (section 101(a)). To implement the act, the U.S. Environmental Protection Agency issues effluent limitations, pretreatment standards, and new source performance standards for industrial wastewater discharges. The Clean Water Act of 1977 expanded the federal pollution control program by setting different types of effluent limitations: "best practicable technology" (BPT), "best available technology" (BAT), "best conventional technology" (BCT), "new source performance standards" (NSPS), "pretreatment standards for existing sources" (PSES), and "pretreatment standards for new sources" (PSNS). The Clean Water Act emphasized control of toxic pollutants, including 65 "priority" pollutants and classes of pollutants from 21 major industries.

The Wisconsin Department of Natural Resources instituted the Wisconsin pollutant discharge elimination system in 1976. This system includes the regulation of discharges from various industries. The Wisconsin Department of Natural Resources is promulgating ch. NR 264, Wis. Adm. Code, to regulate the electrical and electronic components products industry. The provisions of this chapter are based upon the U.S. Environmental Protection Agency's regulations in 40 C.F.R. Part 469.

The purpose of this rule is to specify effluent limitations for BPT, BAT, BCT, and NSPS for the direct discharge of pollutants to waters of the state and to establish pretreatment standards for the introduction of pollutants into publicly owned treatment works. The effect of the creation of ch. NR 264, Wis. Adm. Code, will be to establish state standards and limitations for industrial wastewater discharges from the electrical and electronic components industry. The code will reflect changes made by the U.S. Environmental Protection Agency under authority of sections 301, 304, 306, 307, 308, and 501 of the Clean Water Act.

The electrical and electronic components category of point sources encompasses plants which manufacture semiconductors, electronic crystals, cathode ray tubes, and luminescent materials. Other operations involving electrical and electronic devices are regulated by either the metal finishing regulations, ch. NR 261, or the electroplating regulations, ch. NR 260.

For the semiconductor and electronic crystals subcategories, pollutants of concern are flouride, toxic organics, arsenic, and total suspended solids. The major source of flouride is hydroflouric acid, which is used as an etchant and cleaning agent. Toxic organics result from the use of solvents for cleaning and degreasing operations and solvent based process chemicals. Arsenic is found at facilities which manufacture gallium or indium arsenide crystals. Suspended solids are produced by crystal manufacturing facilities which have cutting and grinding operations.

For the cathode ray tube subcategory, the pollutants of concern are cadmium, chromium, lead, zinc, toxic organics, fluoride, and total suspended solids. Cadmium and zinc are components of the phosphors used in the cathode ray tubes. Chromium occurs as dichromate in photo-sensitive materials. Lead is found in wastewaters from tube salvage operations in which lead components are dissolved in nitric acid. Toxic organics result from the use of solvents for cleaning and degreasing. The major source of fluoride is hydroflouric acid, which is used for cleaning and conditioning glass surfaces. Total suspended solids result from tube coating operations which involve graphite emulsions.

Cadmium, antimony, zinc, flouride, and total suspended solids are the pollutants resulting from the manufacture luminescent materials. Cadmium and zinc are major constituents of blue and green phosphors and are found in wastewater from washing and filtering operations. Antimony is used as an activator and is found in wastewaters from lamp phosphor manufacturing. Flouride results from an intermediate lamp phosphor, calcium flouride. Total suspended solids occur in wastes from filtering and washing operations.

Five federal documents form the basis for 40 CFR Part 469 and ch. NR 264: (1) development document for effluent limitations guidelines and standards for the electrical and electronic components point source category - phase I (USEPA, Washington, D.C., EPA 440/1-83/075, March, 1983); (2) development document for effluent limitations guidelines and standards for the electrical and electronic components point source category - phase II (USEPA, Washington, D.C., EPA 440/1-84/075, February, 1984); (3) economic impact analysis of final effluent limitations guidelines and standards for the electrical and electronic components industry - phase I (USEPA, Washington, D.C., EPA 440/2-83/005, March, 1983); (4) economic impact analysis of effluent limitations guidelines and standards for the electrical and electronic components industry - phase II (USEPA, Washington, D.C., EPA 440/2-83/001, February, 1983); (5) sampling and analysis procedures for screening of industrial effluents for priority pollutants (USEPA, Cincinnati, Ohio, April 1977). Copies of these documents are available for inspection at the central office of the Wisconsin Department of Natural Resources, 101 south Webster street, Madison, and may be obtained from the National Technical Information Service (NTIS), Springfield, Virginia 22161, (703) 487-4600.

This rule uses the format and text of 40 C.F.R. Part 469 and is identical to the federal regulation for purposes of s. 227.14(1m)(a), Stats. However, changes have been made in the text of the federal regulation to make the rule useful to Wisconsin citizens, industry, and regulating authorities. These changes are consistent with the current state regulatory framework and reflect the conventions of state rule drafting.

As required by the administrative rules procedures manual, a purpose section has been added. In addition, revisions have been made to the numbering system, citation formats and definition formats. Where possible, Wisconsin Administrative Code references were substituted in the text for references to the Code of Federal Regulations. Citations in the text to the Code of Federal Regulations may be cross-referenced to corresponding sections of the Wisconsin Administrative Code in the table which has been added at the end of the rule. Subchapters in the state rule parallel the subpart divisions of the federal regulation. Definitions for "existing source", "new source", and "TTO" have been added, along with a compliance dates section. Many specialized definitions in the federal regulations have been incorporated into the applicability sections for each subchapter in the state rule. Finally, the order of NSPS and PSES has been reversed to be consistent with their order in the rules for other categories of point sources.

SECTION 1. Chapter NR 264 is created to read:

Chapter NR 264

ELECTRICAL AND ELECTRONIC COMPONENTS

- NR 264.01 Purpose
- NR 264.02 Applicability
- NR 264.03 General definitions
- NR 264.04 Alternative to monitoring for total toxic organics
- NR 264.05 Compliance dates

Subchapter I - The semiconductor subcategory

- NR 264.10 Applicability; description of the semiconductor subcategory
- NR 264.11 Specialized definitions
- NR 264.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available
- NR 264.13 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable
- NR 264.14 New source performance standards
- NR 264.15 Pretreatment standards for existing sources
- NR 264.16 Pretreatment standards for new sources
- NR 264.17 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology

Subchapter II - The electronic crystals subcategory

- NR 264.20 Applicability; description of the electronic crystals subcategory
- NR 264.21 Specialized definitions
- NR 264.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available
- NR 264.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable
- NR 264.24 New source performance standards
- NR 264.25 Pretreatment standards for existing sources
- NR 264.26 Pretreatment standards for new sources
- NR 264.27 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology

Subchapter III - The cathode ray tube subcategory

- NR 264.30 Applicability; description of the cathode ray tube subcategory
- NR 264.31 Specialized definitions
- NR 264.32 New source performance standards
- NR 264.33 Pretreatment standards for existing sources
- NR 264.34 Pretreatment standards for new sources

Subchapter IV - The luminescent materials subcategory

- NR 264.40 Applicability; description of the luminescent materials subcategory
- NR 264.41 New source performance standards
- NR 264.42 Pretreatment standards for new sources

NR 264.01 PURPOSE. The purpose of this chapter is to establish effluent limitations, performance standards, and pretreatment standards for discharges of process wastes from the electrical and electronic components category of point sources and its subcategories.

NR 264.02 APPLICABILITY. This chapter applies to any manufacturing operation which produces semiconductors, electronic crystals, cathode ray tubes, or luminescent materials and which discharges or may discharge process wastewater pollutants to waters of the State or into a publicly owned treatment works.

NR 264.03 GENERAL DEFINITIONS. The following definitions are applicable to the terms used in this chapter. Definitions of other terms and abbreviations are set forth in ss. NR 205.03, 205.04, and 211.03.

(1) "Existing source" means any point source, except a new source as defined in sub. (2), from which pollutants may be discharged either into waters of the state or into a publicly owned treatment works.

(2) "New source" means any point source from which pollutants are or may be discharged directly to waters of the state or into a publicly owned treatment works and for which construction commenced after August 24, 1982, for point sources subject to the semiconductor and electronic crystals subcategory or March 9, 1983, for point sources subject to the cathode ray tube and luminescent materials subcategories.

(3) "TTO" means total toxic organics.

NR 264.04 ALTERNATIVE TO MONITORING FOR TOTAL TOXIC ORGANICS.

(1) Instead of monitoring for TTO, the certification set forth in sub. (3) may be used as a comment within the discharge monitoring report required by par. NR 205.07(3)(d) or sub. NR 211.15(4), if the following four conditions are met:

(a) A direct discharger has submitted a solvent management plan to the department; A source which discharges to a POTW has submitted a solvent management plan to the control authority;

(b) The department or control authority has approved the solvent management plan;

(c) The solvent management plan has been incorporated into the discharger's permit; and

(d) The solvent management plan is being implemented to the satisfaction of the department or control authority.

(2) The solvent management plan shall specify the following:

(a) The toxic organic compounds used;

(b) A toxic organic compound disposal method other than dumping, such as reclamation, contract hauling, or incineration.

(c) The procedures used to assure that toxic organic compounds do not routinely spill or leak into the wastewater.

(3) The following certification shall be used:

"Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since the filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the [department or POTW]."

NR 264.05 COMPLIANCE DATES. (1) The following compliance dates apply to any source subject to this chapter which discharges to waters of the state:

(a) Any existing source shall achieve the effluent limitations representing BPT by July 1, 1977.

(b) Except as provided in par. (c), any existing source shall achieve the effluent limitations representing BAT and BCT by July 1, 1984.

(c) Existing sources subject to the semiconductor subcategory or the electronic crystals subcategory shall achieve the BAT effluent limitation for fluoride by November 11, 1985.

(d) Any new source subject to the this chapter shall achieve NSPS at the commencement of discharge.

(2) The following compliance dates apply to sources subject to this chapter which introduce process wastewater pollutants into a POTW:

(a) Any existing source subject to the semiconductor subcategory shall achieve PSES by July 1, 1984.

(b) Any existing source subject to the electronic crystals subcategory shall achieve the PSES for TTO by July 1, 1984 and for arsenic by November 8, 1985.

(c) Any existing source subject to the cathode ray tube subcategory shall achieve the PSES by July 14, 1986.

(d) Any new source shall achieve PSNS at the commencement of discharge.

SUBCHAPTER I - THE SEMICONDUCTOR SUBCATEGORY

NR 264.10 APPLICABILITY; DESCRIPTION OF THE SEMICONDUCTOR SUBCATEGORY.

This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from all process operations, beginning with the use of crystal wafers, which lead to or are associated with the manufacture of semiconductors, except sputtering, vapor deposition, and electroplating.

NR 264.11 SPECIALIZED DEFINITIONS. The following definitions apply to

the terms used in this subchapter:

(1) "Semiconductor" means a solid state electrical device which performs functions such as information processing and display, power handling, and interconversion between light energy and electrical energy.

(2) "TTO" means the sum of the concentrations of each of the following toxic organic compounds which is found in the discharge at a concentration greater than ten micrograms per liter:

| | |
|------------------------------|------------------------|
| 1,2,4 trichlorobenzene | 2,4 dichlorophenol |
| chloroform | 4 nitrophenol |
| 1,2 dichlorobenzene | pentachlorophenol |
| 1,3 dichlorobenzene | di-n-butyl phthalate |
| 1,4 dichlorobenzene | anthracene |
| ethylbenzene | 1,2 diphenylhydrazine |
| 1,1,1 trichloroethane | isophorone |
| methylene chloride | butyl benzyl phthalate |
| napthalene | 1,1 dichloroethylene |
| 2 nitrophenol | 2,4,6 trichlorophenol |
| bis (2-ethylhexyl) phthalate | carbon tetrachloride |
| tetrachloroethylene | 1,2 dichloroethane |
| toluene | 1,1,2 trichloroethane |
| trichloroethylene | dichlorobromomethane |
| 2 chlorophenol | |

NR 264.12 EFFLUENT LIMITATIONS REPRESENTING THE DEGREE OF EFFLUENT REDUCTION ATTAINABLE BY THE APPLICATION OF THE BEST PRACTICABLE CONTROL TECHNOLOGY CURRENTLY AVAILABLE. Except as provided in 40 C.F.R. ss. 125.30 to 125.32, any existing point source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by application of BPT:

Table 1

Semiconductor

| | BPT Effluent Limitations | |
|---------------------------------|--------------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| Pollutant or pollutant property | milligrams per liter | |
| TTO | 1.37 | |
| pH | (1) | (1) |

(1) Within the range of 6.0 to 9.0 at all times

NR 264.13 EFFLUENT LIMITATIONS REPRESENTING THE DEGREE OF EFFLUENT REDUCTION ATTAINABLE BY THE APPLICATION OF THE BEST AVAILABLE TECHNOLOGY ECONOMICALLY ACHIEVABLE. Except as provided in 40 C.F.R. ss. 125.30 to 125.32, any existing point source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by application of BAT:

Table 2

Semiconductor

| BAT Effluent Limitations | | |
|------------------------------------|--|--|
| Pollutant or pollutant property | Maximum for any 1 day milligrams per liter | Average of daily values for 30 consecutive days |
| TTO | 1.37 | |
| Flouride | 32.0 | 17.4 |

NR 264.14 NEW SOURCE PERFORMANCE STANDARDS. Any new source subject to this subchapter shall achieve the following NSPS:

Table 3

Semiconductor

| NSPS | | |
|------------------------------------|--|--|
| Pollutant or pollutant property | Maximum for any 1 day milligrams per liter | Average of daily values for 30 consecutive days |
| TTO | 1.37 | |
| Flouride | 32.0 | 17.4 |
| pH | (1) | (1) |

(1) Within the range of 6.0 to 9.0 at all times

NR 264.15 PRETREATMENT STANDARDS FOR EXISTING SOURCES. Except as provided in ss. NR 211.13 and 211.14, any existing source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and the TTO concentration in the discharge may not exceed 1.37 milligrams per liter for any one day.

NR 264.16 PRETREATMENT STANDARDS FOR NEW SOURCES. Except as provided in s. NR 211.13, any new source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and the TTO concentration in the discharge may not exceed 1.37 milligrams per liter for any one day.

NR 264.17 EFFLUENT LIMITATIONS REPRESENTING THE DEGREE OF EFFLUENT REDUCTION ATTAINABLE BY THE APPLICATION OF THE BEST CONVENTIONAL POLLUTANT CONTROL TECHNOLOGY. Except as provided in 40 C.F.R. ss. 125.30 to 125.32, any existing point source subject to this subchapter shall achieve a pH within the range of 6.0 to 9.0 at all times.

SUBCHAPTER II - THE ELECTRONIC CRYSTALS SUBCATEGORY

NR 264.20 APPLICABILITY; DESCRIPTION OF THE ELECTRONIC CRYSTALS

SUBCATEGORY. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs resulting from the growing of crystals or the production of crystal wafers for use in the manufacture of electronic devices.

NR 264.21 SPECIALIZED DEFINITIONS. The following definitions apply to the terms used in this subchapter:

(1) "Electronic crystals" means crystals or crystalline materials, such as crystals comprised of quartz, ceramic silicon, gallium arsenide, and indium arsenide, which, because of their unique structural and electrical properties, are used in electronic devices.

(2) "TTO" means the sum of the concentrations of each of the following toxic organic compounds which is found in the discharge at a concentration greater than ten micrograms per liter:

| | |
|------------------------------|------------------------|
| 1,2,4 trichlorobenzene | 2 chlorophenol |
| chloroform | 2,4 dichlorophenol |
| 1,2 dichlorobenzene | 4 nitrophenol |
| 1,3 dichlorobenzene | pentachlorophenol |
| 1,4 dichlorobenzene | di-n-butyl phthalate |
| ethylbenzene | anthracene |
| 1,1,1 trichloroethane | 1,2 diphenylhydrazine |
| methylene chloride | isophorone |
| naphthalene | butyl benzyl phthalate |
| 2 nitrophenol | 1,1 dichloroethylene |
| bis (2-ethylhexyl) phthalate | 2,4,6 trichlorophenol |
| tetrachloroethylene | carbontetrachloride |
| toluene | 1,2 dichloroethane |
| trichloroethylene | 1,1,2 trichloroethane |
| | dichlorobromomethane |

NR 264.22 EFFLUENT LIMITATIONS REPRESENTING THE DEGREE OF EFFLUENT REDUCTION ATTAINABLE BY THE APPLICATION OF THE BEST PRACTICABLE CONTROL TECHNOLOGY CURRENTLY AVAILABLE. Except as provided in 40 C.F.R. ss. 125.30 to 125.32, any existing point source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by application of BPT:

Table 4

Electronic Crystals

| Pollutant or pollutant property | BPT Effluent Limitations | |
|---------------------------------|--------------------------|---|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| TTO | 1.37 | |
| Arsenic(1) | 2.09 | 0.83 |
| Flouride | 32.0 | 17.4 |
| TSS | 61.0 | 23.0 |
| pH | (2) | (2) |

(1) The arsenic limitation only applies to manufacturers of gallium or indium arsenide crystals.

(2) Within the range of 6.0 to 9.0 at all times

NR 264.23 EFFLUENT LIMITATIONS REPRESENTING THE DEGREE OF EFFLUENT REDUCTION ATTAINABLE BY THE APPLICATION OF THE BEST AVAILABLE TECHNOLOGY ECONOMICALLY ACHIEVABLE. Except as provided in 40 C.F.R. ss. 125.30 to 125.32, any existing point source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by application of BAT:

Table 5

Electronic Crystals

| BAT Effluent Limitations | | |
|------------------------------------|--------------------------|--|
| Pollutant or pollutant property | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| TTO | 1.37 | |
| Arsenic(1) | 2.09 | 0.83 |
| Flouride | 32.0 | 17.4 |

(1) The arsenic limitation only applies to manufacturers of gallium or indium arsenide crystals

NR 264.24 NEW SOURCE PERFORMANCE STANDARDS. Any new source subject to this subchapter shall achieve the standards set forth in s. NR 264.23

NR 264.25 PRETREATMENT STANDARDS FOR EXISTING SOURCES. Except as provided in ss. NR 211.13 and 211.14, any existing source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and achieve the following PSES:

Table 6

Electronic Crystals

| PSES | | |
|------------------------------------|--------------------------|--|
| Pollutant or pollutant property | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| TTO | 1.37 | |
| Arsenic(1) | 2.09 | 0.83 |

(1) The arsenic limitation only applies to manufacturers of gallium or indium arsenide crystals.

NR 264.26 PRETREATMENT STANDARDS FOR NEW SOURCES. Except as provided in s. NR 211.13, any new source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and comply with the standards set forth in s. NR 264.25.

NR 264.27 EFFLUENT LIMITATIONS REPRESENTING THE DEGREE OF EFFLUENT REDUCTION ATTAINABLE BY THE APPLICATION OF THE BEST CONVENTIONAL POLLUTANT CONTROL TECHNOLOGY. Except as provided in 40 C.F.R. ss. 125.30 to 125.32, any existing point source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BCT:

Table 7

Electronic Crystals

| Pollutant or pollutant property | BCT Effluent Limitations | |
|------------------------------------|--------------------------|--|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| TSS | 61.0 | 23.0 |
| pH | (1) | (1) |

(1) Within the range of 6.0 to 9.0 at all times

SUBCHAPTER III - THE CATHODE RAY TUBE SUBCATEGORY

NR 264.30 APPLICABILITY; DESCRIPTION OF THE CATHODE RAY TUBE

SUBCATEGORY. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from the manufacture of cathode ray tubes. This subchapter does not apply to the manufacture of receiving or transmitting tubes.

NR 264.31 SPECIALIZED DEFINITIONS. The following definitions apply to the terms used in this subchapter:

(1) "Cathode ray tube" means an electronic device in which electrons focus through a vacuum to generate a controlled impage on a luminescent surface.

(2) "TTO" means the sum of the concentrations of each of the following toxic organic compounds which is found in the discharge at a concentration greater than ten micrograms per liter:

1,1,1 chloroform
trichloroethane
methylene chloride
bis (2-ethylhexyl) phthalate
toluene
trichloroethylene

NR 264.34 NEW SOURCE PERFORMANCE STANDARDS. Any new source subject to this subchapter shall achieve the following NSPS:

Table 8

Cathode Ray Tube

| NSPS | | |
|------------------------------------|--------------------------|--|
| Pollutant or pollutant property | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| pH | (1) | (1) |
| TTO | 1.58 | |
| Cadmium | 0.06 | 0.03 |
| Chromium | 0.56 | 0.26 |
| Lead | 0.72 | 0.27 |
| Zinc | 0.80 | 0.33 |
| Flouride | 35.0 | 18.0 |
| TSS | 46.0 | 24.0 |

(1) Within the range of 6.0 to 9.0 at all times

NR 264.35 PRETREATMENT STANDARDS FOR EXISTING SOURCES. Except as provided in ss. NR 211.13 and 211.14, any existing source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and achieve the following PSES:

Table 9

Cathode Ray Tube

| PSES | | |
|------------------------------------|--------------------------|--|
| Pollutant or pollutant property | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| TTO | 1.58 | |
| Cadmium | 0.06 | 0.03 |
| Chromium | 0.65 | 0.30 |
| Lead | 1.12 | 0.41 |
| Zinc | 1.38 | 0.56 |
| Flouride | 35.0 | 18.0 |

NR 264.36 PRETREATMENT STANDARDS FOR NEW SOURCES. Except as provided in s. NR 211.13, any new source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and achieve the following PSNS:

Table 10
Cathode Ray Tube

| Pollutant or pollutant property | PSNS | |
|------------------------------------|--------------------------|--|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| TTO | 1.58 | |
| Cadmium | 0.06 | 0.03 |
| Chromium | 0.56 | 0.26 |
| Lead | 0.72 | 0.27 |
| Zinc | 0.80 | 0.33 |
| Flouride | 35.0 | 18.0 |

SUBCHAPTER IV - THE LUMINESCENT MATERIALS SUBCATEGORY

NR 264.40 APPLICABILITY; DESCRIPTION OF THE LUMINESCENT MATERIALS

SUBCATEGORY. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs resulting from the manufacture of materials, such as calcium halophosphate, yttrium oxide, zinc sulfide, and zinc-cadmium sulfide, which emit light upon excitation by energy sources such as photons, electrons, applied voltage, chemical reactions, or mechanical energy, and which are specifically used as coatings in fluorescent lamps and cathode ray tubes.

NR 264.41 NEW SOURCE PERFORMANCE STANDARDS. Any new source subject to this subchapter shall achieve the following NSPS:

Table 11

Luminescent Materials

| Pollutant or pollutant property | NSPS | |
|------------------------------------|--------------------------|--|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| pH | (1) | (1) |
| Cadmium | 0.55 | 0.26 |
| Antimony | 0.10 | 0.04 |
| Zinc | 1.64 | 0.67 |
| Flouride | 35.0 | 18.0 |
| TSS | 60.0 | 31.0 |

(1) Within the range of 6.0 to 9.0 at all times

NR 264.42 PRETREATMENT STANDARDS FOR NEW SOURCES. Except as provided in s. NR 211.13, any new source subject to this subchapter which introduces pollutants into a POTW shall comply with ch. NR 211 and achieve the following PSNS:

Table 12
Luminescent Materials

| Pollutant or pollutant property | PSNS | |
|------------------------------------|--------------------------|--|
| | Maximum for any 1 day | Average of daily values for 30 consecutive days |
| | milligrams per liter | |
| Cadmium | 0.55 | 0.26 |
| Antimony | 0.10 | 0.04 |
| Zinc | 1.64 | 0.67 |
| Flouride | 35.0 | 18.0 |

NOTE: The Wisconsin administrative code corresponds to the code of federal regulations as cross referenced in the following table:

| <u>State Code</u> | <u>Corresponding Federal Regulation</u> |
|--------------------|---|
| s. NR 205.03 | 40 C.F.R. s. 401.11 |
| s. NR 205.04 | 40 C.F.R. s. 401.11 |
| s. NR 205.07(3)(d) | 40 C.F.R. s. 122.44(i) |
| ch. NR 211 | 40 C.F.R. Part 403 |
| s. NR 211.03 | 40 C.F.R. s. 403.3 |
| s. NR 211.13 | 40 C.F.R. s. 403.7 |
| s. NR 211.14 | 40 C.F.R. s. 403.13 |
| s. NR 211.15(4) | 40 C.F.R. s. 403.12(e) |
| ch. NR 264 | 40 C.F.R. Part 469 |

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on October 26, 1989.

The rules shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin March 1, 1990

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny
Carroll D. Besadny, Secretary

(SEAL)



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny, Secretary

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TELEFAX NO. 608-267-3579

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March 2, 1990

In reply refer to: 1020

Mr. Gary L. Poulson
Assistant Revisor of Statutes
Suite 702
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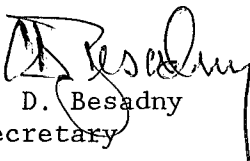
Revisor of Statutes
Bureau

Dear Mr. Poulson:

Enclosed are two copies, including one certified copy, of State of Wisconsin Natural Resources Board Order No. WW-11-89. These rules were reviewed by the Assembly Committee on Environmental Resources and Utilities and the Senate Committee on Urban Affairs, Environmental Resources, Utilities and Elections pursuant to s. 227.19, Stats. Summaries of the final regulatory flexibility analysis and comments of the legislative review committees are also enclosed.

You will note that this order takes effect following publication. Kindly publish it in the Administrative Code accordingly.

Sincerely,


C. D. Besadny
Secretary

Enc.

