

## Chapter NR 262

### PORCELAIN ENAMELING

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**NR 262.01 Purpose.** The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges of process wastes from the porcelain enameling category of point sources and its subcategories.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.015 Applicability.** (1) Except as provided in subs. (2) and (3), the provisions of this chapter apply to any porcelain enameling facility which discharges pollutants to waters of the state or introduces pollutants into a publicly owned treatment works.

(2) Any existing porcelain enameling facility which prepares or coats less than 1600 m<sup>2</sup>/day and which introduces less than 60,000 l/day of wastewater into a publicly owned treatment works is not controlled by the pretreatment standards for existing sources established by this rule. Such facilities shall comply with the provisions of 40 CFR Part 403.

(3) This chapter does not apply to the porcelain enameling on precious metal basis material.

(4) When wastewaters from coating cast iron are co-treated with wastewaters from coating steel, the limitations for coating steel contained in s. NR 262.11 may be applied to the entire wastewater.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.02 General definitions.** In addition to the definitions set forth in 40 CFR Part 401, the following definitions apply to this chapter:

(1) "Area coated" means the area of basis material covered by each coating of enamel.

(2) "Area processed" means the total basis material area exposed to processing solutions.

(3) "Basis material" means the metal part or base onto which porcelain enamel is applied.

(4) "Coating operations" means all of the operations associated with preparation and application of the vitreous coating. Usually this includes ballmilling, slip transport, application of slip to the work pieces, cleaning and recovery of faulty parts, and firing (fusing) of the enamel coat.

(5) "Control authority" means the publicly owned treatment works if it has an approved pretreatment program; in the absence of such a program, the state.

(6) "Existing source" means any source that is not a new source.

(7) "Metal preparation" means any and all of the metal processing steps preparatory to applying the enamel slip. Usually this includes cleaning, pickling and applying a nickel flash or chemical coating.

(8) "New source," as defined for PSES and PSNS, means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced after April 27, 1984.

(9) "New source," as defined for BPT, BAT, BCT, and NSPS, means any point source the construction of which commenced after October 21, 1985.

(10) "Porcelain enameling" means the entire process of applying a fused vitreous enamel coating to a metal basis material. Usually this includes metal preparation and coating operations.

(11) "Precious metal" means gold, silver, or platinum group metals and the principal alloys of those metals.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.03 Monitoring and reporting requirements.**

(1) Periodic analyses for chromium as may be required under 40 CFR Part 122 or 403 is not required when both of the following conditions are met:

(a) The first wastewater sample of each calendar year has been analyzed and found to contain less than 0.08 mg/l chromium.

(b) The owner or operator of the porcelain enameling facility certifies in writing to the control authority that chromium is not contained in the raw materials or process chemicals of that facility and will not be used in the facility.

(2) The "monthly average" regulatory values shall be the basis for the monthly average discharge in direct discharge permits and for pretreatment standards. Compliance with the monthly discharge limit is required regardless of the number of samples analyzed and averaged.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.04 Compliance date for pretreatment standards for existing sources (PSES).** The compliance date for pretreatment standards for existing sources is November 25, 1985.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.10 Applicability; description of the steel basis material subcategory.** This subcategory applies to discharges to waters of the state and introduction of pollutants into publicly owned treatment works from porcelain enameling on steel basis materials.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.11 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 CFR 125.30 to 125.32, any existing point source subject to this subcategory shall achieve the following effluent limitations for metal preparation operations and for coating operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

| BPT effluent limitations   |  |                   |                             |                   |
|--|--|-------------------|-----------------------------|-------------------|
| Pollutant or pollutant property  | Maximum for any 1 day                                      |                   | Maximum for monthly average |                   |
|  | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|  | Metric units—mg/m <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium ..  | 16.82  | 3.41              | 6.81                        | 1.38              |
| Lead .....   | 6.01   | 1.21              | 5.21                        | 1.06              |
| Nickel .....   | 56.46  | 11.43             | 40.05                       | 8.11              |
| Zinc .....   | 53.26  | 10.78             | 22.43                       | 4.54              |
| Aluminum ..  | 182.2  | 36.87             | 74.47                       | 15.07             |
| Iron .....   | 112.12   | 22.69             | 56.06                       | 11.34             |
| Oil and grease   | 800.84   | 162.1             | 480.51                      | 97.23             |
| TSS .....  | 1642.0   | 332.2             | 800.9                       | 162.0             |
| pH .....   | (1)  | (1)               | (1)                         | (1)               |
| English units pounds per 1 million ft <sup>2</sup> of area processed or coated |  |                   |                             |                   |
| Chromium ..  | 3.45   | 0.07              | 1.4                         | 0.29              |
| Lead .....   | 1.23   | 0.25              | 1.07                        | 0.22              |
| Nickel .....   | 11.57  | 2.34              | 8.2                         | 1.66              |
| Zinc .....   | 10.91  | 2.21              | 4.6                         | 0.93              |
| Aluminum ..  | 37.32  | 7.85              | 15.26                       | 3.09              |
| Iron .....   | 22.96  | 4.65              | 11.48                       | 2.32              |
| Oil and grease   | 164.03   | 33.19             | 98.42                       | 19.92             |
| TSS .....  | 337.0  | 68.1              | 164.0                       | 33.2              |
| pH .....   | (1)  | (1)               | (1)                         | (1)               |

<sup>1</sup> Within the range 7.5 to 10.0.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.** Except as provided in 40 CFR 125.30 to 125.32 any existing point source subject to this subcategory shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

| BAT effluent limitations   |  |                   |                             |                   |
|--|--|-------------------|-----------------------------|-------------------|
| Pollutant or pollutant property  | Maximum for any 1 day                                      |                   | Maximum for monthly average |                   |
|  | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|  | Metric units—mg/m <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium ..  | 16.82  | 0.53              | 6.81                        | 0.22              |
| Lead .....   | 6.01   | 0.19              | 5.21                        | 0.16              |
| Nickel .....   | 56.5   | 1.78              | 40.05                       | 1.26              |
| Zinc .....   | 53.3   | 1.68              | 22.43                       | 0.71              |
| Aluminum ..  | 182.0  | 5.74              | 74.48                       | 2.35              |
| Iron .....   | 112.12   | 3.53              | 56.06                       | 1.77              |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |  |                   |                             |                   |
| Chromium ..  | 3.45   | 0.11              | 1.4                         | 0.05              |
| Lead .....   | 1.23   | 0.04              | 1.07                        | 0.03              |
| Nickel .....   | 11.57  | 0.37              | 8.2                         | 0.26              |
| Zinc .....   | 10.91  | 0.35              | 4.6                         | 0.15              |
| Aluminum ..  | 37.32  | 1.18              | 15.26                       | 0.48              |
| Iron .....   | 22.96  | 0.72              | 11.48                       | 0.36              |

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.13 New source performance standards.** Any new source subject to this subcategory shall achieve the following new source performance standards:

| NSPS   |  |                   |                             |                   |
|--|--|-------------------|-----------------------------|-------------------|
| Pollutant or pollutant property  | Maximum for any 1 day                                      |                   | Maximum for monthly average |                   |
|  | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|  | Metric units—mg/m <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium ..  | 3.7  | 0.47              | 1.5                         | 0.19              |
| Lead .....   | 1.0  | 0.13              | 0.9                         | 0.11              |
| Nickel .....   | 12.0   | 1.51              | 6.3                         | 0.79              |
| Zinc .....   | 10.2   | 1.29              | 4.2                         | 0.53              |
| Aluminum ..  | 30.3   | 3.82              | 12.4                        | 1.56              |
| Iron .....   | 28.0   | 3.53              | 14.0                        | 1.77              |
| Oil and grease   | 100.0  | 12.6              | 100.0                       | 12.6              |
| TSS .....  | 150.0  | 18.91             | 120.0                       | 15.12             |
| pH .....   | (1)  | (1)               | (1)                         | (1)               |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |  |                   |                             |                   |
| Chromium ..  | 0.76   | 0.1               | 0.31                        | 0.04              |
| Lead .....   | 0.21   | 0.03              | 0.19                        | 0.03              |
| Nickel .....   | 2.46   | 0.31              | 1.29                        | 0.16              |
| Zinc .....   | 2.09   | 0.27              | 0.86                        | 0.11              |
| Aluminum ..  | 6.21   | 0.78              | 2.54                        | 0.32              |
| Iron .....   | 5.74   | 0.72              | 2.87                        | 0.36              |
| Oil and grease   | 20.48  | 2.58              | 20.48                       | 2.58              |
| TSS .....  | 30.72  | 3.87              | 24.58                       | 3.1               |
| pH .....   | (1)  | (1)               | (1)                         | (1)               |

<sup>1</sup> Within the range 7.5 to 10.0.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.14 Pretreatment standards for existing sources. (1)** Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources.

| Pollutant or pollutant property | PSES                        |                   |                             |                   |
|---------------------------------|-----------------------------|-------------------|-----------------------------|-------------------|
|                                 | Maximum for any 1 day       |                   | Maximum for monthly average |                   |
|                                 | Metal preparation           | Coating operation | Metal preparation           | Coating operation |
|                                 | Milligrams per liter (mg/l) |                   |                             |                   |
| Chromium . . .                  | 0.42                        |                   | 0.17                        |                   |
| Lead . . . . .                  | 0.15                        |                   | 0.13                        |                   |
| Nickel . . . . .                | 1.41                        |                   | 1.0                         |                   |
| Zinc . . . . .                  | 1.33                        |                   | 0.56                        |                   |

(2) In cases where POTWs find it necessary to impose mass effluent pretreatment standards the following equivalent mass standards are provided:

| Pollutant or pollutant property | PSES   |                   |                             |                   |
|---------------------------------|--|-------------------|-----------------------------|-------------------|
|                                 | Maximum for any 1 day  |                   | Maximum for monthly average |                   |
|                                 | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|                                 | Metric units—mg/m <sup>2</sup> of area processed or coated                     |                   |                             |                   |
| Chromium . . .                  | 16.82  | 0.53              | 6.81                        | 0.22              |
| Lead . . . . .                  | 6.01   | 0.19              | 5.21                        | 0.16              |
| Nickel . . . . .                | 56.5   | 1.78              | 40.1                        | 1.26              |
| Zinc . . . . .                  | 53.3   | 1.68              | 22.5                        | 0.71              |
|                                 | English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium . . .                  | 3.45   | 0.11              | 1.4                         | 0.05              |
| Lead . . . . .                  | 1.23   | 0.04              | 1.07                        | 0.03              |
| Nickel . . . . .                | 11.6   | 0.37              | 8.2                         | 0.26              |
| Zinc . . . . .                  | 10.9   | 0.35              | 4.6                         | 0.15              |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.15 Pretreatment standards for new sources.** Except as provided in 40 CFR 403.7 and 403.13, any new source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

| Pollutant or pollutant property | PSNS   |                   |                             |                   |
|---------------------------------|--|-------------------|-----------------------------|-------------------|
|                                 | Maximum for any 1 day  |                   | Maximum for monthly average |                   |
|                                 | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|                                 | Metric units—mg/2 of area processed or coated                                  |                   |                             |                   |
| Chromium . . .                  | 3.7  | 0.47              | 1.5                         | 0.19              |
| Lead . . . . .                  | 1.0  | 0.13              | 0.9                         | 0.11              |
| Nickel . . . . .                | 12.0   | 1.51              | 6.3                         | 0.79              |
| Zinc . . . . .                  | 10.2   | 1.29              | 4.2                         | 0.53              |
|                                 | English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium . . .                  | 0.76   | 0.1               | 0.31                        | 0.04              |
| Lead . . . . .                  | 0.2  | 0.03              | 0.19                        | 0.02              |
| Nickel . . . . .                | 2.46   | 0.31              | 1.29                        | 0.16              |
| Zinc . . . . .                  | 2.09   | 0.27              | 0.86                        | 0.11              |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.20 Applicability; description of the cast iron basis material subcategory.** This subcategory applies to discharges to waters of the state and introductions of pollutants into

publicly owned treatment works from porcelain enameling of cast iron basis materials.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.21 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 CFR 125.30 to 125.32, any existing point source subject to this subcategory shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

(1) There may not be discharge of process wastewater pollutants from metal preparation operations.

(2) The discharge of process wastewater pollutants from all porcelain enameling coating operations may not exceed the values set forth below:

| Pollutant or pollutant property | BPT effluent limitations   |        |                             |         |
|---------------------------------|--|--------|-----------------------------|---------|
|                                 | Maximum for any 1 day  |        | Maximum for monthly average |         |
|                                 | mg/m <sup>2</sup> (Pounds per million ft <sup>2</sup> ) of area coated |        |                             |         |
| Chromium . . .                  | 0.29   | (0.06) | 0.12                        | (0.024) |
| Lead . . . . .                  | 0.11   | (0.02) | 0.09                        | (0.02)  |
| Nickel . . . . .                | 0.98   | (0.02) | 0.7                         | (0.15)  |
| Zinc . . . . .                  | 0.93   | (0.19) | 0.39                        | (0.08)  |
| Aluminum . . .                  | 3.16   | (0.65) | 1.29                        | (0.27)  |
| Iron . . . . .                  | 0.86   | (0.18) | 0.44                        | (0.09)  |
| Oil and grease .                | 13.86  | (2.48) | 8.32                        | (1.71)  |
| TSS . . . . .                   | 28.42  | (5.82) | 13.86                       | (2.84)  |
| pH . . . . .                    | (1)  | (1)    | (1)                         | (1)     |

<sup>1</sup>Within the range 7.5 to 10.0.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.** Except as provided in 40 CFR 125.30 to 125.32, any existing point source subject to this subcategory shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

(1) There may not be discharge of process wastewater pollutants from metal preparation operations.

(2) The discharge of process wastewater pollutants from all porcelain enameling coating operations may not exceed the values set forth below:

| Pollutant or pollutant property | BAT effluent limitations   |        |                             |        |
|---------------------------------|--|--------|-----------------------------|--------|
|                                 | Maximum for any 1 day  |        | Maximum for monthly average |        |
|                                 | mg/m <sup>2</sup> (Pounds per million ft <sup>2</sup> ) of area coated |        |                             |        |
| Chromium . . .                  | 0.53   | (0.11) | 0.22                        | (0.05) |
| Lead . . . . .                  | 0.19   | (0.04) | 0.16                        | (0.03) |
| Nickel . . . . .                | 1.78   | (0.37) | 1.26                        | (0.26) |
| Zinc . . . . .                  | 1.68   | (0.35) | 0.71                        | (0.15) |
| Aluminum . . .                  | 5.74   | (1.18) | 2.35                        | (0.48) |
| Iron . . . . .                  | 1.55   | (0.32) | 0.79                        | (0.16) |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.23 New source performance standards.** Any new source subject to this subcategory shall achieve the following new source performance standards:

(1) There may not be discharge of process wastewater pollutants from metal preparation operations.

(2) The discharge of process wastewater pollutants from all porcelain enameling coating operations may not exceed the values set forth below:

| NSPS                            |  |        |                             |        |
|---------------------------------|--|--------|-----------------------------|--------|
| Pollutant or pollutant property | Maximum for any 1 day  |        | Maximum for monthly average |        |
|                                 | mg/m <sup>2</sup> (Pounds per million ft <sup>2</sup> ) of area coated |        |                             |        |
| Chromium . . . . .              | 0.47   | (0.1)  | 0.19                        | (0.04) |
| Lead . . . . .                  | 0.13   | (0.03) | 0.11                        | (0.02) |
| Nickel . . . . .                | 0.69   | (0.14) | 0.47                        | (0.1)  |
| Zinc . . . . .                  | 1.29   | (0.27) | 0.53                        | (0.11) |
| Aluminum . . . . .              | 3.82   | (0.78) | 1.56                        | (0.32) |
| Iron . . . . .                  | 1.55   | (0.32) | 0.79                        | (0.16) |
| Oil and grease . . . . .        | 12.6   | (2.58) | 12.6                        | (2.58) |
| TSS . . . . .                   | 18.91  | (3.87) | 15.12                       | (3.1)  |
| pH . . . . .                    | (1)  | (1)    | (1)                         | (1)    |

<sup>1</sup>Within the range 7.5 to 10.0.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.24 Pretreatment standards for existing sources.** (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

(a) There may not be discharge of process wastewater pollutants from metal preparation operations.

(b) The discharge of process wastewater pollutants from all porcelain enameling coating operations may not exceed the values set forth below:

| PSES                            |                             |                             |
|---------------------------------|-----------------------------|-----------------------------|
| Pollutant or pollutant property | Maximum for any 1 day       | Maximum for monthly average |
|                                 | Milligrams per liter (mg/l) |                             |
| Chromium . . . . .              | 0.42                        | 0.17                        |
| Lead . . . . .                  | 0.15                        | 0.13                        |
| Nickel . . . . .                | 1.41                        | 1.0                         |
| Zinc . . . . .                  | 1.33                        | 0.56                        |

(2) In cases where POTWs find it necessary to impose mass pretreatment standards the following equivalent mass standards are provided:

(a) There may not be discharge of process wastewater pollutants from metal preparation operations.

(b) The discharge of process wastewater pollutants from all porcelain enameling coating operations may not exceed the values set forth below:

| PSES                            |  |        |                             |        |
|---------------------------------|--|--------|-----------------------------|--------|
| Pollutant or pollutant property | Maximum for any 1 day  |        | Maximum for monthly average |        |
|                                 | mg/m <sup>2</sup> (Pounds per million ft <sup>2</sup> ) of area coated |        |                             |        |
| Chromium . . . . .              | 0.53   | (0.11) | 0.22                        | (0.05) |
| Lead . . . . .                  | 0.19   | (0.04) | 0.16                        | (0.03) |
| Nickel . . . . .                | 1.78   | 0.37   | 1.26                        | (0.26) |
| Zinc . . . . .                  | 1.68   | (0.35) | 0.71                        | (0.15) |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.25 Pretreatment standards for new sources.** Except as provided in 40 CFR 403.7, any new source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources.

(1) There may not be discharge of process wastewater pollutants from metal preparation operations.

(2) The discharge of process wastewater pollutants from all porcelain enameling coating operations may not exceed the values set forth below:

| PSNS                            |  |        |                             |        |
|---------------------------------|--|--------|-----------------------------|--------|
| Pollutant or pollutant property | Maximum for any 1 day  |        | Maximum for monthly average |        |
|                                 | mg/m <sup>2</sup> (Pounds per million ft <sup>2</sup> ) of area coated |        |                             |        |
| Chromium . . . . .              | 0.47   | (0.1)  | 0.19                        | (0.04) |
| Lead . . . . .                  | 0.13   | (0.03) | 0.11                        | (0.02) |
| Nickel . . . . .                | 0.69   | (0.14) | 0.47                        | (0.1)  |
| Zinc . . . . .                  | 1.29   | (0.27) | 0.53                        | (0.11) |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.30 Applicability; description of the aluminum basis material subcategory.** This subcategory applies to discharges to waters of the state and introductions of pollutants into publicly owned treatment works from porcelain enameling of aluminum basis materials.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.31 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 CFR 125.30 to 125.32, any existing point source subject to this subcategory shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

| Pollutant or pollutant property  | BPT effluent limitations |                   |                             |                   |
|--|--------------------------|-------------------|-----------------------------|-------------------|
|  | Maximum for any 1 day    |                   | Maximum for monthly average |                   |
|  | Metal preparation        | Coating operation | Metal preparation           | Coating operation |
| Metric units—mg/m <sup>2</sup> of area processed or coated                     |                          |                   |                             |                   |
| Chromium . . . . .   | 16.34                    | 6.32              | 6.63                        | 2.56              |
| Lead . . . . .   | 5.84                     | 2.26              | 5.06                        | 1.96              |
| Nickel . . . . .   | 54.85                    | 21.21             | 38.9                        | 15.04             |
| Zinc . . . . .   | 51.73                    | 20.01             | 21.79                       | 8.43              |
| Aluminum . . . . .   | 176.98                   | 68.44             | 72.35                       | 27.98             |
| Iron . . . . .   | 47.85                    | 18.5              | 24.51                       | 9.48              |
| Oil and grease . . . . .   | 777.92                   | 300.84            | 466.76                      | 108.5             |
| TSS . . . . .  | 1594.74                  | 616.68            | 777.92                      | 300.82            |
| pH . . . . .   | (1)                      | (1)               | (1)                         | (1)               |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                          |                   |                             |                   |
| Chromium . . . . .   | 3.35                     | 1.3               | 1.37                        | 0.53              |
| Lead . . . . .   | 1.2                      | 0.47              | 1.04                        | 0.4               |
| Nickel . . . . .   | 11.24                    | 4.35              | 7.97                        | 3.08              |
| Zinc . . . . .   | 10.6                     | 4.1               | 4.46                        | 1.73              |
| Aluminum . . . . .   | 36.25                    | 14.02             | 14.82                       | 5.73              |
| Iron . . . . .   | 9.8                      | 3.79              | 5.02                        | 1.94              |
| Oil and grease . . . . .   | 159.33                   | 61.61             | 95.6                        | 36.97             |
| TSS . . . . .  | 326.62                   | 126.33            | 159.33                      | 61.61             |
| pH . . . . .   | (1)                      | (1)               | (1)                         | (1)               |

<sup>1</sup>Within the range 7.5 to 10.0.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.** Except as provided in 40 CFR 125.30 to 125.32,

any existing point source subject to this subcategory shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

| BAT effluent limitations   |                       |                   |                             |                  |
|--|-----------------------|-------------------|-----------------------------|------------------|
| Pollutant or pollutant property  | Maximum for any 1 day |                   | Maximum for monthly average |                  |
|  | Metal preparation     | Coating operation | Metal preparation           | Coating property |
| Metric units—mg/m <sup>2</sup> of area processed or coated                     |                       |                   |                             |                  |
| Chromium . . . . .   | 16.34                 | 0.53              | 6.62                        | 0.22             |
| Lead . . . . .   | 5.84                  | 0.19              | 5.06                        | 0.16             |
| Nickel . . . . .   | 54.85                 | 1.78              | 38.9                        | 1.26             |
| Zinc . . . . .   | 51.74                 | 1.68              | 21.79                       | 1.71             |
| Aluminum . . . . .   | 176.98                | 5.74              | 72.35                       | 2.35             |
| Iron . . . . .   | 47.85                 | 1.55              | 24.51                       | 0.8              |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                       |                   |                             |                  |
| Chromium . . . . .   | 3.35                  | 0.11              | 1.36                        | 0.05             |
| Lead . . . . .   | 1.2                   | 0.04              | 1.04                        | 0.03             |
| Nickel . . . . .   | 11.24                 | 0.37              | 7.97                        | 0.26             |
| Zinc . . . . .   | 10.6                  | 0.35              | 4.46                        | 0.35             |
| Aluminum . . . . .   | 36.25                 | 1.18              | 14.82                       | 0.48             |
| Iron . . . . .   | 9.8                   | 0.32              | 5.02                        | 0.16             |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.33 New source performance standards.** Any new source subject to this subcategory shall achieve the following new source performance standards:

| NSPS   |                       |                   |                             |                   |
|--|-----------------------|-------------------|-----------------------------|-------------------|
| Pollutant or pollutant property  | Maximum for any 1 day |                   | Maximum for monthly average |                   |
|  | Metal preparation     | Coating operation | Metal preparation           | Coating operation |
| Metric units—mg/m <sup>2</sup> of area processed or coated                     |                       |                   |                             |                   |
| Chromium . . . . .   | 3.6                   | 0.47              | 1.46                        | 0.19              |
| Lead . . . . .   | 0.97                  | 0.13              | 0.88                        | 0.11              |
| Nickel . . . . .   | 5.35                  | 0.69              | 3.6                         | 0.47              |
| Zinc . . . . .   | 9.92                  | 1.29              | 4.09                        | 0.53              |
| Aluminum . . . . .   | 29.46                 | 3.82              | 12.06                       | 1.56              |
| Iron . . . . .   | 11.96                 | 1.55              | 6.13                        | 0.79              |
| Oil and grease   | 97.24                 | 12.6              | 97.24                       | 12.6              |
| TSS . . . . .  | 145.86                | 18.91             | 116.69                      | 15.12             |
| pH . . . . .   | (1)                   | (1)               | (1)                         | (1)               |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                       |                   |                             |                   |
| Chromium . . . . .   | 0.74                  | 0.1               | 0.3                         | 0.04              |
| Lead . . . . .   | 0.2                   | 0.03              | 0.18                        | 0.2               |
| Nickel . . . . .   | 1.1                   | 0.14              | 0.74                        | 0.1               |
| Zinc . . . . .   | 2.03                  | 0.27              | 0.84                        | 0.11              |
| Aluminum . . . . .   | 6.03                  | 0.78              | 2.47                        | 0.32              |
| Iron . . . . .   | 2.45                  | 0.32              | 1.26                        | 0.16              |
| Oil and grease   | 19.92                 | 2.58              | 19.92                       | 2.58              |
| TSS . . . . .  | 29.88                 | 3.87              | 23.9                        | 3.1               |
| pH . . . . .   | (1)                   | (1)               | (1)                         | (1)               |

<sup>1</sup>Within the range 7.5 to 10.0.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.34 Pretreatment standards for existing sources.** (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall comply

with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

| PSES                            |                             |                             |
|---------------------------------|-----------------------------|-----------------------------|
| Pollutant or pollutant property | Maximum for any 1 day       | Maximum for monthly average |
|                                 | Milligrams per liter (mg/l) |                             |
| Chromium . . . . .              | 0.42                        | 0.17                        |
| Lead . . . . .                  | 0.15                        | 0.13                        |
| Nickel . . . . .                | 1.41                        | 1.0                         |
| Zinc . . . . .                  | 1.33                        | 0.56                        |

(2) In cases where POTWs find it necessary to impose mass pretreatment standards the following equivalent mass standards are provided:

| PSES   |                       |                   |                             |                   |
|--|-----------------------|-------------------|-----------------------------|-------------------|
| Pollutant or pollutant property  | Maximum for any 1 day |                   | Maximum for monthly average |                   |
|  | Metal preparation     | Coating operation | Metal preparation           | Coating operation |
| Metric units—mg/m <sup>2</sup> of area processed or coated                     |                       |                   |                             |                   |
| Chromium . . . . .   | 16.34                 | 0.53              | 6.62                        | 0.22              |
| Lead . . . . .   | 5.84                  | 0.19              | 5.06                        | 0.16              |
| Nickel . . . . .   | 54.85                 | 1.78              | 38.9                        | 1.26              |
| Zinc . . . . .   | 51.74                 | 1.68              | 21.79                       | 1.71              |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                       |                   |                             |                   |
| Chromium . . . . .   | 3.35                  | 0.11              | 1.36                        | 0.05              |
| Lead . . . . .   | 1.2                   | 0.04              | 1.04                        | 0.03              |
| Nickel . . . . .   | 11.24                 | 0.37              | 7.97                        | 0.25              |
| Zinc . . . . .   | 10.6                  | 0.35              | 4.46                        | 0.35              |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.35 Pretreatment standards for new sources.** Except as provided in 40 CFR 403.7, any new source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

| PSNS   |                       |                   |                             |                   |
|--|-----------------------|-------------------|-----------------------------|-------------------|
| Pollutant or pollutant property  | Maximum for any 1 day |                   | Maximum for monthly average |                   |
|  | Metal preparation     | Coating operation | Metal preparation           | Coating operation |
| Metric units—mg/m <sup>2</sup> of area processed or coated                     |                       |                   |                             |                   |
| Chromium . . . . .   | 3.6                   | 0.47              | 1.46                        | 0.19              |
| Lead . . . . .   | 0.97                  | 0.13              | 0.88                        | 0.11              |
| Nickel . . . . .   | 5.35                  | 0.69              | 3.6                         | 0.47              |
| Zinc . . . . .   | 9.92                  | 1.29              | 4.09                        | 0.53              |
| English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                       |                   |                             |                   |
| Chromium . . . . .   | 0.74                  | 0.1               | 0.3                         | 0.04              |
| Lead . . . . .   | 0.2                   | 0.03              | 0.18                        | 0.02              |
| Nickel . . . . .   | 1.1                   | 0.14              | 0.74                        | 0.1               |
| Zinc . . . . .   | 2.03                  | 0.27              | 0.84                        | 0.11              |

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.40 Applicability; description of the copper basis material subcategory.** This subcategory applies to discharges to waters of the state and introductions of pollutants into publicly owned treatment works from porcelain enameling of copper basis materials.

History: Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.43 New source performance standards.** Any new source subject to this subcategory shall achieve the following new source performance standards:

| Pollutant or pollutant property | NSPS   |                   |                             |                   |
|---------------------------------|--|-------------------|-----------------------------|-------------------|
|                                 | Maximum for any 1 day  |                   | Maximum for monthly average |                   |
|                                 | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|                                 | Metric units—mg/m <sup>2</sup> of area processed or coated                     |                   |                             |                   |
| Chromium ..                     | 6.23   | 0.46              | 2.52                        | 0.19              |
| Lead .....                      | 1.69   | 0.13              | 1.52                        | 0.11              |
| Nickel .....                    | 9.25   | 0.69              | 6.23                        | 0.47              |
| Zinc .....                      | 17.16  | 1.29              | 7.07                        | 0.53              |
| Aluminum ..                     | 50.97  | 3.82              | 20.86                       | 1.56              |
| Iron .....                      | 20.69  | 1.55              | 10.6                        | 0.79              |
| Oil and grease                  | 168.23   | 12.6              | 168.23                      | 12.6              |
| TSS .....                       | 252.35   | 18.91             | 201.88                      | 15.12             |
| pH .....                        | (1)  | (1)               | (1)                         | (1)               |
|                                 | English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium ..                     | 1.28   | 0.1               | 0.52                        | 0.04              |
| Lead .....                      | 0.35   | 0.03              | 0.31                        | 0.03              |
| Nickel .....                    | 1.9  | 0.14              | 1.28                        | 0.1               |
| Zinc .....                      | 3.52   | 0.27              | 1.45                        | 0.11              |
| Aluminum ..                     | 10.44  | 0.78              | 4.27                        | 0.32              |
| Iron .....                      | 4.24   | 0.32              | 2.17                        | 0.16              |
| Oil and grease                  | 34.46  | 2.58              | 34.46                       | 2.58              |
| TSS .....                       | 51.69  | 3.87              | 41.35                       | 3.1               |
| pH .....                        | (1)  | (1)               | (1)                         | (1)               |

<sup>1</sup>Within the range 7.5 to 10.0.

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.45 Pretreatment standards for new sources.** Any new source subject to this subcategory which introduces pollutants into a publicly owned treatment works shall

comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

| Pollutant or pollutant property | PSNS   |                   |                             |                   |
|---------------------------------|--|-------------------|-----------------------------|-------------------|
|                                 | Maximum for any 1 day  |                   | Maximum for monthly average |                   |
|                                 | Metal preparation  | Coating operation | Metal preparation           | Coating operation |
|                                 | Metric units—mg/m <sup>2</sup> of area processed or coated                     |                   |                             |                   |
| Chromium ..                     | 6.23   | 0.46              | 2.52                        | 0.19              |
| Lead .....                      | 1.69   | 0.13              | 1.52                        | 0.11              |
| Nickel .....                    | 9.25   | 0.69              | 6.23                        | 0.47              |
| Zinc .....                      | 17.16  | 1.29              | 7.07                        | 0.53              |
|                                 | English units—pounds per 1 million ft <sup>2</sup> of area processed or coated |                   |                             |                   |
| Chromium ..                     | 1.28   | 0.1               | 0.52                        | 0.04              |
| Lead .....                      | 0.35   | 0.03              | 0.31                        | 0.02              |
| Nickel .....                    | 1.9  | 0.14              | 1.28                        | 0.1               |
| Zinc .....                      | 3.52   | 0.27              | 1.45                        | 0.11              |

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.

**NR 262.50 Cross-references.** The federal citations in this chapter correspond to provisions of the Wisconsin Administrative Code and Wisconsin Statutes. The federal citations may be cross-referenced in the following table:

| <u>CODE OF FEDERAL REGULATIONS</u> | <u>CORRESPONDING STATE CODE SECTION</u> |
|------------------------------------|---|
| 40 CFR Part 466 .....              | ch. NR 262                              |
| 40 CFR 125.30 to 125.32 .....      | s. NR 211.14, s. 283.13 (3), Stats.     |
| 40 CFR Part 401 .....              | chs. NR 205, 215, 219                   |
| 40 CFR Part 403 .....              | chs. NR 211, 217                        |
| 40 CFR 403.7 .....                 | s. NR 211.13                            |
| 40 CFR 403.13 .....                | s. NR 211.14                            |

**History:** Cr. Register, October, 1986, No. 370, eff. 11-1-86.