Chapter NR 255

BATTERY MANUFACTURING

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| | attainable by the application of the best practicable control tech- | | nomically achievable. |
| | nology currently available. | NR 255.73 | New source performance standards. |
| NR 255.32 | Effluent limitations representing the degree of effluent reduction | NR 255.74 | Pretreatment standards for existing sources. |
| | attainable by the application of the best available technology eco- | NR 255.75 | Pretreatment standards for new sources. |
| | nomically achievable. | NR 255.80 | Cross-references. |
| | • | | |

Subchapter I — General Provisions

NR 255.01 Purpose. The purpose of this chapter is to establish effluent limitations, standards of performance, and pretreatment standards for discharges of process wastes from the battery manufacturing category of point sources and its subcategories.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.015 Applicability. This chapter applies to any battery manufacturing plant that discharges or may discharge a pollutant to waters of the state or that introduces pollutants into a publicly owned treatment works. Battery manufacturing operations subject to regulation under this chapter are not subject to regulation under chs. NR 260 and 261.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

- **NR 255.02 General definitions.** In addition to the definitions set forth in ch. NR 205 and s. NR 211.03, the following definitions apply to this chapter:
- (1) "Ancillary operations" means all of the operations specific to battery manufacturing and not included specifically within anode or cathode manufacture. Ancillary operations are primarily associated with battery assembly and chemical production of anode or cathode active materials.
- (2) "Battery" means a modular electric power source where part or all of the fuel is contained within the unit and electric power is generated directly from a chemical reaction rather than indirectly through a heat cycle engine. In this chapter, there is no differentiation between a single cell and a battery.
- (3) "Battery manufacturing operations" means all of the specific processes used to produce a battery including the manufacture of anodes and cathodes and associated ancillary operations. These manufacturing operations are excluded from regulation under any other point source category.

- (4) "Discharge allowance" means the amount of pollutant that a plant will be permitted to discharge measured by mg. per kg. of production unit. For purposes of this chapter, the allowances are specific to battery manufacturing operations.
- **(5)** "Existing source" means any point source, except a new source as defined in sub. (9), from which pollutants may be discharged either into the waters of the state or into a POTW.
- **(6)** "Leclanche type batteries" means zinc anode batteries with acid electrolyte.
- (7) "Miscellaneous wastewater streams" means the combined wastewater streams from the process operations within each of 4 subcategories: cadmium, lead, lithium, and zinc. If a plant has one of these wastewater streams, then the plant receives the entire miscellaneous wastewater stream allowance. The process operations for the cadmium subcategory are cell wash, electrolyte preparation, floor and equipment wash, and employe wash. The process operations for the lead subcategory are floor wash, wet air pollution control, battery repair, laboratory, hand wash, and respirator wash. The process operations for the lithium subcategory are floor and equipment wash, cell testing, and lithium scrap disposal. The process operations for the zinc subcategory are cell wash, electrolyte preparation, employe wash, reject cell handling, and floor and equipment wash.
 - (8) "NSPS" means new source performance standards.
- **(9)** "New source," as defined for NSPS and PSNS, means any point source from which pollutants may be discharged directly into the waters of the state or into a POTW, the construction of which commenced after November 10, 1982.
- (10) "PSES" means pretreatment standards for existing sources.
 - (11) "PSNS" means pretreatment standards for new sources.

- (12) "Plate soak" means the process operation of soaking or reacting lead subcategory battery plates, that are more than 2.5 mm. or 0.100 in. thick, in sulfuric acid.
- (13) "Trucked batteries" means batteries moved into or out of the plant by truck when the truck is actually washed in the plant to remove residues left in the truck from the batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.03 Monitoring and reporting requirements.

Compliance with the maximum monthly average effluent limitations and pretreatment standards listed in the tables for each regulated process is required regardless of the number of samples analyzed and averaged. The maximum monthly average effluent limitations and pretreatment standards listed in the tables for each regulated process shall be the basis for monthly average discharge limits in direct discharge permits and for pretreatment standards. **History:** Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.04 Compliance date for PSES. The compliance date for pretreatment standards for existing sources is March 9, 1987.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

Subchapter II — Cadmium Subcategory

NR 255.10 Applicability; description of the cadmium subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing cadmium anode batteries. History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.11 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. (1) Except as provided in 40 CFR 125.30 to 125.32, any existing source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BPT:

Table 1
Pasted and Pressed Powder Anodes
BPT

| | 211 | |
|------------------------------------|---------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — m | ng/kg of cadmium |
| | English units — l cadmium | b/million lbs of |
| Cadmium | 0.92 | 0.41 |
| Nickel | 5.18 | 3.43 |
| Zinc | 3.94 | 1.65 |
| Cobalt | 0.57 | 0.24 |
| Oil and grease | 54.00 | 32.40 |
| TSS | 111.00 | 52.65 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 2 Electrodeposited Anodes BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|-------------------------------------|
| | Metric units — | mg/kg of cadmium |
| | English units - | lb/million lbs of |
| | cadmium | |
| Cadmium | 237.0 | 104.6 |
| Nickel | 1,338.2 | 885.2 |
| Zinc | 1,017.6 | 425.2 |
| Cobalt | 146.4 | 62.7 |
| Oil and grease | 13,940.0 | 8,364.0 |
| TSS | 28,577.0 | 13,592.0 |
| pH | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 3 Impregnated Anodes BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of cadmium |
| | English units — | - lb/million lbs of cad- |
| | mium | |
| Cadmium | 339.3 | 149.7 |
| Nickel | 1,916.2 | 1,267.5 |
| Zinc | 1,457.1 | 608.8 |
| Cobalt | 209.6 | 89.8 |
| Oil and grease | 19,960.0 | 11,976.0 |
| TSS | 40,918.0 | 19,461.0 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 4 Nickel Electrodeposited Cathodes BPT

| | DI I | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — applied | - mg/kg of nickel |
| | English units — nickel applied | - lb/million lbs of |
| Cadmium | 193.5 | 85.4 |
| Nickel | 1,092.5 | 722.6 |
| Zinc | 830.7 | 347.1 |
| Cobalt | 119.5 | 51.2 |
| Oil and grease | 11,380.0 | 6,828.0 |
| TSS | 23,329.0 | 11,095.5 |
| рН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 5 Nickel Impregnated Cathodes BPT

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|------------------------|---------------------------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — applied | - mg/kg of nickel |
| | English units — | lb/million lbs of |
| | nickel applied | |
| Cadmium | 557.6 | 246.0 |
| Nickel | 3,148.8 | 2,082.8 |
| Zinc | 2,394.4 | 1,000.4 |
| Cobalt | 344.4 | 147.6 |
| Oil and grease | 32,800.0 | 19,680.0 |
| TSS | 67,240.0 | 31,980.0 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 6 Miscellaneous Wastewater Streams BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — produced | mg/kg of cells |
| | English units — produced | - lb/million lbs of cells |
| Cadmium | 6.29 | 2.77 |
| Nickel | 35.54 | 23.50 |
| Zinc | 27.02 | 11.29 |
| Cobalt | 3.89 | 1.66 |
| Oil and grease | 370.20 | 222.12 |
| TSS | 758.91 | 360.94 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 7
Cadmium Powder Production
BPT

| | DFI | |
|------------------------------------|-------------------------------|---------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — powder produce | - mg/kg of cadmium ed |
| | English units — cadmium powd | - lb/million lbs of er produced |
| Cadmium | 22.34 | 9.86 |
| Nickel | 126.14 | 83.44 |
| Zinc | 95.92 | 40.08 |
| Cobalt | 13.80 | 5.91 |
| Oil and grease | 1,314.00 | 788.40 |
| TSS | 2,693.00 | 1,281.20 |
| pH | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 8 Silver Powder Production BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | |
|------------------------------------|--|---------------------|
| | Metric units — mg/kg of silver powder produced | |
| | | – lb/million lbs of |
| | silver powder p | produced |
| Cadmium | 7.21 | 3.18 |
| Nickel | 40.70 | 26.92 |
| Silver | 8.69 | 3.61 |
| Zinc | 30.95 | 12.93 |
| Cobalt | 4.45 | 1.91 |
| Oil and grease | 424.00 | 254.40 |
| TSS | 869.20 | 413.40 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 9
Cadmium Hydroxide Production
BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|------------------------------|--------------------------------|
| | Metric units — used | mg/kg of cadmium |
| | English units — cadmium used | lb/million lbs of |
| Cadmium | 0.31 | 0.14 |
| Nickel | 1.73 | 1.14 |
| Zinc | 1.31 | 0.55 |
| Cobalt | 0.19 | 0.08 |
| Oil and grease | 18.00 | 10.80 |
| TSS | 86.90 | 17.60 |
| pН | (1) | $(^1)$ |

Within the range of 7.5 to 10.0 at all times.

Table 10 Nickel Hydroxide Production BPT

| | 211 | |
|------------------------------------|---------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of nickel used |
| | English units nickel used | — lb/million lbs of |
| Cadmium | 37.4 | 16.5 |
| Nickel | 211.2 | 139.7 |
| Zinc | 160.6 | 67.1 |
| Cobalt | 23.1 | 9.9 |
| Oil and grease | 2,200.0 | 1,320.0 |
| TSS | 4,510.0 | 2,145.0 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 1 to 10.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable. (1) Except as provided in 40 CFR 125.30 to 125.32, any existing source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BAT:

Table 11 Electrodeposited Anodes

| | DAI | |
|--------------------|-------------------------|---------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of cadmium |
| | English units — cadmium | - lb/million lbs of |
| Cadmium | 11.95 | 5.27 |
| Nickel | 67.49 | 44.64 |
| Zinc | 51.32 | 21.44 |
| Cobalt | 7.38 | 3.16 |

Table 12 Impregnated Anodes or Nickel Impregnated Cathodes RAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of cadmium or nickel applied English units — lb/million lbs of cadmium or nickel applied | |
| | | |
| Cadmium | 68.0 | 30.0 |
| Nickel | 384.0 | 254.0 |
| Zinc | 292.0 | 122.0 |
| Cobalt | 42.0 | 18.0 |

Table 13 Nickel Electrodeposited Cathodes BAT

| | DAI | | |
|--|--|-----------------|--|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR | |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE | |
| Metric units — mg/kg of nickel applied | | | |
| | English units — lb/million lbs of nickel applied | | |
| Cadmium | 11.22 | 4.95 | |
| Nickel | 63.36 | 41.91 | |
| Zinc | 48.18 | 20.13 | |
| Cobalt | 6.93 | 2.97 | |

Table 14 Miscellaneous Wastewater Streams BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of cells produced | |
| | English units — lb/million lbs of cells produced | |
| Cadmium | 0.79 | 0.35 |
| Nickel | 4.47 | 2.96 |
| Zinc | 3.40 | 1.42 |
| Cobalt | 0.49 | 0.21 |

Table 15 Cadmium Powder Production BAT

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|-----------------------------------|------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | | |
| | Metric units — | ng/kg of cadmium |
| | powder produce | |
| | | |
| | English units — lb/million lbs of | |
| | | |
| | cadmium powder produced | |
| Cadmium | 2.23 | 0.99 |
| Nickel | 12.61 | 8.34 |
| TTERET | 12.01 | 0.51 |
| Zinc | 9.59 | 4.01 |
| | | |
| Cobalt | 1.38 | 0.59 |

Table 16 Silver Powder Production BAT

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|--|-----------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — mg/kg of silver powder produced English units — lb/million lbs of silver powder produced | |
| | | |
| | | |
| | | |
| Cadmium | 1.09 | 0.48 |
| Nickel | 6.16 | 4.08 |
| Silver | 1.32 | 0.55 |
| Zinc | 4.69 | 1.96 |
| Cobalt | 0.67 | 0.29 |

Table 17 Cadmium Hydroxide Production BAT

| | DAI | |
|--------------------|---------------------|-------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | |
| | Metric units — used | mg/kg of cadmium |
| | English units — | lb/million lbs of |
| | cadmium used | |
| Cadmium | 0.05 | 0.02 |
| Nickel | 0.27 | 0.18 |
| Zinc | 0.20 | 0.09 |
| Cobalt | 0.03 | 0.01 |

Table 18 Nickel Hydroxide Production BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — | mg/kg of nickel used |
| | English units - nickel used | — lb/million lbs of |
| Cadmium | 5.61 | 2.48 |
| Nickel | 31.68 | 20.96 |
| Zinc | 24.09 | 10.07 |
| Cobalt | 3.47 | 1.49 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 11 to 18.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.13 New source performance standards.

(1) The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 19 Electrodeposited Anodes NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of cadmium |
| | English units — cadmium | - lb/million lbs of |
| Cadmium | 7.03 | 2.81 |
| Nickel | 19.33 | 13.01 |
| Zinc | 35.85 | 14.76 |
| Cobalt | 4.92 | 2.46 |
| Oil and grease | 351.5 | 351.5 |
| TSS | 527.3 | 421.8 |
| pH | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 20 Impregnated Anodes or Nickel Impregnated Cathodes NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|----------------------------------|-------------------------------------|
| | Metric units — nickel applied | mg/kg of cadmium or |
| | English units – cadmium or nic | – lb/million lbs of ckel applied |
| Cadmium | 40.0 | 16.0 |
| Nickel | 110.0 | 74.0 |
| Zinc | 204.0 | 84.0 |
| Cobalt | 28.0 | 14.0 |
| Oil and grease | 2,000.0 | 2,000.0 |
| TSS | 3,000.0 | 2,400.0 |
| pН | $(^1)$ | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 21 Nickel Electrodeposited Cathodes NSPS

| 1131 5 | | | |
|------------------------------------|-----------------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — applied | mg/kg of nickel | |
| | English units - nickel applied | — lb/million lbs of | |
| Cadmium | 6.60 | 2.64 | |
| Nickel | 18.15 | 12.21 | |
| Zinc | 33.66 | 13.86 | |
| Cobalt | 4.62 | 2.31 | |
| Oil and grease | 330.0 | 330.0 | |
| TSS | 495.0 | 396.0 | |
| рН | (1) | (1) | |

Within the range of 7.5 to 10.0 at all times.

Table 22 Miscellaneous Wastewater Streams NSPS

| 1131 3 | | | |
|------------------------------------|--------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — produced | mg/kg of cells | |
| | English units — produced | lb/million lbs of cells | |
| Cadmium | 0.47 | 0.19 | |
| Nickel | 1.28 | 0.86 | |
| Zinc | 2.38 | 0.98 | |
| Cobalt | 0.33 | 0.16 | |
| Oil and grease | 23.3 | 23.3 | |
| TSS | 35.0 | 28.0 | |
| рН | (¹) | (1) | |

Within the range of 7.5 to 10.0 at all times.

Table 23 Cadmium Powder Production NSPS

| | 11020 | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — powder produced | mg/kg of cadmium d |
| | English units — cadmium powde | |
| Cadmium | 1.31 | 0.53 |
| Nickel | 3.61 | 2.43 |
| Zinc | 6.70 | 2.76 |
| Cobalt | 0.92 | 0.46 |
| Oil and grease | 65.70 | 65.70 |
| TSS | 98.55 | 78.84 |
| На | (1) | $(^{1})$ |

Within the range of 7.5 to 10.0 at all times.

Table 24 Silver Powder Production NSPS

| | 11010 | |
|------------------------------------|---------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — powder produc | mg/kg of silver ed |
| | English units – silver powder p | - lb/million lbs of broduced |
| Cadmium | 0.64 | 0.26 |
| Nickel | 1.77 | 1.19 |
| Silver | 0.93 | 0.39 |
| Zinc | 3.27 | 1.35 |
| Cobalt | 0.45 | 0.22 |
| Oil and grease | 32.10 | 32.10 |
| TSS | 48.15 | 38.52 |
| pН | $(^{1})$ | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 25
Cadmium Hydroxide Production
NSPS

| | 1131 3 | |
|------------------------------------|------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — used | mg/kg of cadmium |
| | English units — cadmium used | - lb/million lbs of |
| Cadmium | 0.028 | 0.011 |
| Nickel | 0.077 | 0.051 |
| Zinc | 0.142 | 0.058 |
| Cobalt | 0.019 | 0.009 |
| Oil and grease | 1.40 | 1.40 |
| TSS | 2.10 | 1.68 |
| pН | (1) | (1) |

 $^{^{1}}$ Within the range of 7.5 to 10.0 at all times.

Table 26 Nickel Hydroxide Production NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — | mg/kg of nickel used |
| | English units - nickel used | — lb/million lbs of |
| Cadmium | 3.30 | 1.32 |
| Nickel | 9.08 | 6.11 |
| Zinc | 16.83 | 6.93 |
| Cobalt | 2.31 | 1.16 |
| Oil and grease | 165.0 | 165.0 |
| TSS | 247.5 | 198.0 |
| рН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 19 to 26.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.14 Pretreatment standards for existing sources. (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

Table 27
Electrodeposited Anodes
PSES

| | IBLB | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of cadmium |
| | English units — cadmium | - lb/million lbs of |
| Cadmium | 11.95 | 5.27 |
| Nickel | 67.49 | 44.64 |
| Zinc | 51.32 | 21.44 |
| Cobalt | 7.38 | 3.16 |

Table 28 Impregnated Anodes or Nickel Impregnated Cathodes PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|------------------------------------|-----------------------------------|
| | Metric units — r nickel applied | ng/kg of cadmium or |
| | English units — mium or nickel | lb/million lbs of cad- applied |
| Cadmium | 68.0 | 30.0 |
| Nickel | 384.0 | 254.0 |
| Zinc | 292.0 | 122.0 |
| Cobalt | 42.0 | 18.0 |

Table 29 Nickel Electrodeposited Cathodes PSES

| | IBES | |
|------------------------------------|-----------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — applied | |
| | English units - nickel applied | — lb/million lbs of |
| Cadmium | 11.22 | 4.95 |
| Nickel | 63.36 | 41.91 |
| Zinc | 48.18 | 20.13 |
| Cobalt | 6.93 | 2.97 |

Table 30 Miscellaneous Wastewater Streams PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — produced | mg/kg of cells |
| | English units — produced | lb/million lbs of cells |
| Cadmium | 0.79 | 0.35 |
| Nickel | 4.47 | 2.96 |
| Zinc | 3.40 | 1.42 |
| Cobalt | 0.49 | 0.21 |

Table 31 Cadmium Powder Production PSES

| | 1020 | |
|------------------------------------|---|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — powder produce | mg/kg of cadmium |
| | English units — lb/million lbs of cadmium powder produced | |
| Cadmium | 2.23 | 0.99 |
| Nickel | 12.61 | 8.34 |
| Zinc | 9.59 | 4.01 |
| Cobalt | 1.38 | 0.59 |

Table 32 Silver Powder Production PSES

| | ISES | |
|------------------------------------|----------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units —: der produced | mg/kg of silver pow- |
| | English units — silver powder pr | lb/million lbs of roduced |
| Cadmium | 1.09 | 0.48 |
| Nickel | 6.16 | 4.08 |
| Silver | 1.32 | 0.55 |
| Zinc | 4.69 | 1.96 |
| Cobalt | 0.67 | 0.29 |

Table 33
Cadmium Hydroxide Production
PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|------------------------------|--------------------------------|
| | Metric units — used | mg/kg of cadmium |
| | English units — cadmium used | lb/million lbs of |
| Cadmium | 0.05 | 0.02 |
| Nickel | 0.27 | 0.18 |
| Zinc | 0.20 | 0.09 |
| Cobalt | 0.03 | 0.012 |

Table 34 Nickel Hydroxide Production PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|---------------------------------------|
| | Metric units — | mg/kg of nickel used |
| | English units - | lb/million lbs of |
| | nickel used | |
| Cadmium | 5.61 | 2.48 |
| Nickel | 31.68 | 20.96 |
| Zinc | 24.09 | 10.07 |
| Cobalt | 3.47 | 1.49 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 27 to 34.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.15 Pretreatment standards for new sources. (1) Except as provided in 40 CFR 403.7, any new source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

Table 35 Electrodeposited Anodes PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of cadmium |
| | English units — cadmium | - lb/million lbs of |
| Cadmium | 7.03 | 2.81 |
| Nickel | 19.33 | 13.01 |
| Zinc | 35.85 | 14.76 |
| Cobalt | 4.92 | 2.46 |

Table 36 Impregnated Anodes or Nickel Impregnated Cathodes PSNS

| 15115 | | | | |
|--------------------|---|-----------------|--|--|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR | | |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE | | |
| | Metric units — mg/kg of cadmium or nickel applied | | | |
| | English units — lb/million lbs of | | | |
| | cadmium or nickel applied | | | |
| Cadmium | 40.0 | 16.0 | | |
| Nickel | 110.0 | 74.0 | | |
| Zinc | 204.0 | 84.0 | | |
| Cobalt | 28.0 | 14.0 | | |

Table 37 Nickel Electrodeposited Cathodes PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of nickel applied | |
| | English units - nickel applied | — lb/million lbs of |
| Cadmium | 6.60 | 2.64 |
| Nickel | 18.15 | 12.21 |
| Zinc | 33.66 | 13.86 |
| Cobalt | 4.62 | 2.31 |

Table 38 Miscellaneous Wastewater Streams PSNS

| | FSINS | |
|--------------------|---|---------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — duced | mg/kg of cells pro- |
| | English units — lb/million lbs of cells | |
| | produced | |
| Cadmium | 0.47 | 0.19 |
| Nickel | 1.28 | 0.86 |
| Zinc | 2.38 | 0.96 |
| Cobalt | 0.33 | 0.16 |

Table 39 Cadmium Powder Production PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|---|--------------------------------|
| | Metric units — powder produce | mg/kg of cadmium |
| | English units — lb/million lbs of cadmium powder produced | |
| Cadmium | 1.31 | 0.53 |
| Nickel | 3.61 | 2.43 |
| Zinc | 6.70 | 2.76 |
| Cobalt | 0.92 | 0.46 |

Table 40 Silver Powder Production PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of silver powder produced | |
| | English units — silver powder pr | - lb/million lbs of roduced |
| Cadmium | 0.64 | 0.26 |
| Nickel | 1.77 | 1.19 |
| Silver | 0.93 | 0.39 |
| Zinc | 3.27 | 1.35 |
| Cobalt | 0.45 | 0.22 |

Table 41 Cadmium Hydroxide Production PSNS

| | 1 51 15 | |
|------------------------------------|------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — used | mg/kg of cadmium |
| | English units — cadmium used | - lb/million lbs of |
| Cadmium | 0.028 | 0.011 |
| Nickel | 0.077 | 0.051 |
| Zinc | 0.142 | 0.058 |
| Cobalt | 0.019 | 0.009 |

Table 42 Nickel Hydroxide Production PSNS

| | 1 5115 | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | | mg/kg of nickel used |
| | English units - nickel used | — lb/million lbs of |
| Cadmium | 3.30 | 1.32 |
| Nickel | 9.08 | 6.11 |
| Zinc | 16.83 | 6.93 |
| Cobalt | 2.31 | 1.16 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 35 to 42.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

Subchapter III — Calcium Subcategory

NR 255.20 Applicability; description of the calcium subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing calcium anode batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.23 New source performance standards.

There may be no discharge allowance for process wastewater pollutants from any battery manufacturing new source subject to this subchapter.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.25 Pretreatment standards for new sources. There may be no discharge allowance for process wastewater pollutants into a POTW from any battery manufacturing new source subject to this subchapter.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

Subchapter IV — Lead Subcategory

NR 255.30 Applicability; description of the lead subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing lead anode batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.31 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. (1) Except as provided in 40 CFR 125.30 to 125.32, any existing source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BPT:

Table 43
Closed Formation — Double Fill, or Fill and Dump
BPT

| | 22.2 | |
|------------------------------------|--|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 0.86 | 0.45 |
| Lead | 0.19 | 0.090 |
| Iron | 0.54 | 0.27 |
| Oil and grease | 9.00 | 5.40 |
| TSS | 18.45 | 8.78 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 44
Open Formation — Dehydrated
BPT

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|-----------------|------------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 20.99 | 11.06 |
| Lead | 4.64 | 2.21 |
| Iron | 16.13 | 6.74 |
| Oil and grease | 221.00 | 132.60 |
| TSS | 453.05 | 215.47 |
| рН | (1) | (1) |
| 1 | | |

¹ Within the range of 7.5 to 10.0 at all times.

Table 45 Open Formation — Wet BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
|------------------------------------|--------------------------|-----------------------------------|--|
| | Metric units — | Metric units — mg/kg of lead used | |
| | English units — used | lb/million lbs of lead | |
| Copper | 0.10 | 0.05 | |
| Lead | 0.02 | 0.01 | |
| Iron | 0.06 | 0.03 | |
| Oil and grease | 1.06 | 0.64 | |
| TSS | 2.17 | 1.03 | |
| рН | (1) | (1) | |

¹ Within the range of 7.5 to 10.0 at all times.

Table 46 Plate Soak BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 0.040 | 0.020 |
| Lead | 0.009 | 0.004 |
| Iron | 0.030 | 0.010 |
| Oil and grease | 0.420 | 0.250 |
| TSS | 0.860 | 0.410 |
| pH | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 47
Battery Wash with Detergent
BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 1.71 | 0.90 |
| Lead | 0.38 | 0.18 |
| Iron | 1.08 | 0.55 |
| Oil and grease | 18.00 | 10.80 |
| TSS | 36.90 | 17.55 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 48
Battery Wash — Water Only

| | DF 1 | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| TOLLUTANTTROTERTT | | |
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 1.12 | 0.59 |
| Lead | 0.25 | 0.12 |
| Iron | 0.71 | 0.36 |
| Oil and grease | 11.80 | 7.08 |
| TSS | 24.19 | 11.51 |
| pН | (1) | (1) |

Table 49 Direct Chill Lead Casting

| | Dri | |
|--------------------|-----------------|------------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 0.00040 | 0.00020 |
| Lead | 0.00008 | 0.00004 |
| Iron | 0.00020 | 0.00010 |
| Oil and grease | 0.00400 | 0.00200 |
| TSS | 0.00800 | 0.00300 |
| На | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 50 Mold Release Formulation BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| • | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 0.011 | 0.006 |
| Lead | 0.002 | 0.001 |
| Iron | 0.007 | 0.004 |
| Oil and grease | 0.120 | 0.072 |
| TSS | 0.246 | 0.117 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 51 Truck Wash BPT

| | DF I | |
|------------------------------------|-------------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — trucked batteries | - mg/kg of lead in |
| | English units — in trucked batter | lb/million lbs of lead ries |
| Copper | 0.026 | 0.014 |
| Lead | 0.005 | 0.002 |
| Iron | 0.016 | 0.006 |
| Oil and grease | 0.280 | 0.168 |
| TSS | 0.574 | 0.273 |
| pH | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 52 Laundry BPT

| DOLL LITA NIT OD | MANDADAFOD | MANDADAFOD |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 0.21 | 0.11 |
| Lead | 0.05 | 0.02 |
| Iron | 0.13 | 0.07 |
| Oil and grease | 2.18 | 1.31 |
| TSS | 4.47 | 2.13 |
| pН | (1) | (1) |
| 1 | | |

Within the range of 7.5 to 10.0 at all times.

Table 53 Miscellaneous Wastewater Streams BPT

| 14.1m 4n 4505 | V/1 V/D // T/O D |
|-----------------|------------------------------|
| | MAXIMUM FOR |
| ANY 1 DAY | MONTHLY AVERAGE |
| Metric units — | mg/kg of lead used |
| English units — | lb/million lbs of lead |
| used | |
| 0.81 | 0.43 |
| 0.18 | 0.09 |
| 0.51 | 0.26 |
| 8.54 | 5.12 |
| 17.51 | 8.33 |
| (1) | (1) |
| | 0.81 0.18 0.51 8.54 |

¹ Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 43 to 53

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable. (1) Except as provided in 40 CFR 125.30 to 125.32, any existing source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BAT:

¹ Within the range of 7.5 to 10.0 at all times.

| Table 54 |
|-----------------------------|
| Open Formation — Dehydrated |
| BAT |

| | 2211 | |
|-----------------------------------|--|-----------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| Metric units — mg/kg of lead used | | |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 3.19 | 1.68 |
| Lead | 0.71 | 0.34 |
| Iron | 2.02 | 1.02 |

Table 55 Open Formation — Wet

| BAT | | |
|--|---|--|
| MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| Metric units — mg/kg of lead used | | |
| English units — lb/million lbs of lead | | |
| used | | |
| 0.100 | 0.053 | |
| 0.022 | 0.010 | |
| 0.06 | 0.03 | |
| | ANY 1 DAY Metric units — English units — used 0.100 0.022 | |

Table 56 Plate Soak BAT

| | DIXI | |
|-----------------------------------|--|-----------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| Metric units — mg/kg of lead used | | |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 0.039 | 0.021 |
| Lead | 0.008 | 0.004 |
| Iron | 0.030 | 0.010 |

Table 57 Battery Wash with Detergent BAT

| | Dill | |
|-----------------------------------|--|-----------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| Metric units — mg/kg of lead used | | |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 1.71 | 0.90 |
| Lead | 0.38 | 0.18 |
| Iron | 1.08 | 0.55 |

Table 58 Direct Chill Lead Casting BAT

| | 2.11 | |
|--------------------|----------------|------------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | | lb/million lbs of lead |
| | used | |
| Copper | 0.0004 | 0.0002 |
| Lead | 0.00008 | 0.00004 |
| Iron | 0.0002 | 0.0001 |

Table 59 Mold Release Formulation BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 0.011 | 0.006 |
| Lead | 0.002 | 0.001 |
| Iron | 0.007 | 0.003 |

Table 60 Truck Wash BAT

| | BAI | |
|------------------------------------|------------------------------------|----------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units – trucked batterie | – mg/kg of lead in s |
| | English units — in trucked batte | - lb/million lbs of lead ries |
| Copper | 0.026 | 0.014 |
| Lead | 0.005 | 0.002 |
| Iron | 0.016 | 0.008 |

Table 61 Laundry BAT

| BAT | | |
|--|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| English units — lb/million lbs of lead | | |
| | used | |
| Copper | 0.21 | 0.11 |
| Lead | 0.05 | 0.02 |
| Iron | 0.13 | 0.07 |

Table 62 Miscellaneous Wastewater Streams BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — | - lb/million lbs of lead |
| | used | |
| Copper | 0.58 | 0.31 |
| Lead | 0.13 | 0.06 |
| Iron | 0.37 | 0.19 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 54 to 62.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.33 New source performance standards.

(1) The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 63 Open Formation — Dehydrated NSPS

| | Metric units — mg | Metric units — mg/kg of lead used | |
|----------------|---------------------|--|--|
| | English units — lb. | English units — lb/million lbs of lead | |
| | used | | |
| Copper | 2.15 | 1.02 | |
| Lead | 0.47 | 0.21 | |
| Iron | 2.01 | 1.02 | |
| Oil and grease | 16.80 | 16.80 | |
| TSS | 25.20 | 20.16 | |
| pН | (1) | $(^{1})$ | |

Within the range of 7.5 to 10.0 at all times.

Table 64
Open Formation — Wet
NSPS

| | Metric units — mg English units — lb, used | , , |
|----------------|--|-------|
| Copper | 0.067 | 0.032 |
| Lead | 0.014 | 0.006 |
| Iron | 0.063 | 0.032 |
| Oil and grease | 0.53 | 0.53 |
| TSS | 0.80 | 0.64 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 65 Plate Soak NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--|
| | Metric units - | mg/kg of lead used |
| | English uni | ts — lb/million lbs of lead used |
| Copper | 0.026 | 0.012 |
| Lead | 0.005 | 0.002 |
| Iron | 0.025 | 0.012 |
| Oil and grease | 0.21 | 0.21 |
| TSS | 0.32 | 0.25 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 66 Battery Wash with Detergent NSPS

| | - 1.0 - 10 | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 1.152 | 0.549 |
| Lead | 0.252 | 0.117 |
| Iron | 1.08 | 0.55 |
| Oil and grease | 9.0 | 9.0 |
| TSS | 13.5 | 10.8 |
| рН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 67 Direct Chill Lead Casting NSPS

| | - 1.0 - 10 | |
|------------------------------------|---------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — lead used | lb/million lbs of |
| Copper | 0.000256 | 0.000122 |
| Lead | 0.000056 | 0.000026 |
| Iron | 0.000240 | 0.000122 |
| Oil and grease | 0.0020 | 0.0020 |
| TSS | 0.0030 | 0.0024 |
| pH | (1) | (1) |
| | | |

Within the range of 7.5 to 10.0 at all times.

Table 68 Mold Release Formulation NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 0.0077 | 0.0037 |
| Lead | 0.0017 | 0.0008 |
| Iron | 0.0072 | 0.0037 |
| Oil and grease | 0.060 | 0.060 |
| TSS | 0.090 | 0.072 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 69 Truck Wash NSPS

| | - 1.0 - 10 | |
|------------------------------------|------------------------------------|-----------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units – trucked batterie | — mg/kg of lead in |
| | English units — in trucked batte | - lb/million lbs of lead eries |
| Copper | 0.006 | 0.003 |
| Lead | 0.001 | 0.0007 |
| Iron | 0.006 | 0.003 |
| Oil and grease | 0.050 | 0.050 |
| TSS | 0.075 | 0.060 |
| pН | $(^{1})$ | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 70 Laundry NSPS

| | 1131 3 | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — used | lb/million lbs of lead |
| Copper | 0.14 | 0.07 |
| Lead | 0.03 | 0.01 |
| Iron | 0.13 | 0.07 |
| Oil and grease | 1.09 | 1.09 |
| TSS | 1.64 | 1.31 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 71 Miscellaneous Wastewater Streams NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 0.39 | 0.19 |
| Lead | 0.085 | 0.039 |
| Iron | 0.37 | 0.19 |
| Oil and grease | 3.07 | 3.07 |
| TSS | 4.61 | 3.69 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 63 to 71.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.34 Pretreatment standards for existing sources. (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

Table 72 Open Formation — Dehydrated PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|---|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead used | |
| Copper | 3.19 | 1.68 |
| Lead | 0.71 | 0.34 |

Table 73 Open Formation — Wet PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | |
|------------------------------------|---|--------------------|
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead used | |
| Common | 0.100 | 0.053 |
| Copper | 0.100 | 0.033 |
| Lead | 0.022 | 0.010 |

| Table 74 |
|------------|
| Plate Soak |
| DCFC |

| | 1020 | |
|--------------------|-----------------|------------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | lb/million lbs of lead |
| | used | |
| Copper | 0.039 | 0.021 |
| Lead | 0.008 | 0.004 |

Table 75 Battery Wash with Detergent PSFS

| | IBLB | |
|--------------------|--|--------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 1.71 | 0.90 |
| Lead | 0.38 | 0.18 |

Table 76 Direct Chill Lead Casting PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--|
| | | mg/kg of lead used lb/million lbs of lead |
| Copper | 0.0004 | 0.0002 |
| Lead | 0.00008 | 0.00004 |

Table 77 Mold Release Formulation PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--|
| | | mg/kg of lead used lb/million lbs of lead |
| Copper | 0.011 | 0.006 |
| Lead | 0.002 | 0.001 |

Table 78 Truck Wash PSES

| | IDED | |
|--------------------|-----------------------------------|-----------------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — trucked batteries | mg/kg of lead in |
| | English units — in trucked batter | lb/million lbs of lead ries |
| Copper | 0.026 | 0.014 |
| Lead | 0.005 | 0.002 |

Table 79 Laundry PSES

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|-----------------|--------------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | - lb/million lbs of lead |
| | used | |
| Copper | 0.21 | 0.11 |
| Lead | 0.05 | 0.02 |

Table 80 Miscellaneous Wastewater Streams PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|---|
| | | mg/kg of lead used - lb/million lbs of lead |
| Copper | 0.58 | 0.31 |
| Lead | 0.13 | 0.06 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 72 to 80.

(3) In cases where battery employe shower wastewater containing concentrations of lead exceeding 0.20 mg/l is combined with process wastewaters prior to treatment, the control authority may, under and notwithstanding the provisions of s. NR 211.12, exercise its discretion and classify battery employe shower wastewater as an unregulated rather than a dilute (F_D) wastestream, for the purpose of applying the combined wastestream formula. Before the control authority may exercise its discretion to classify such a stream as an unregulated stream, the battery manufacturer must provide engineering, production, and sampling and analysis information sufficient to allow a determination by the control authority on how the stream should be classified.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.35 Pretreatment standards for new sources. (1) Except as provided in 40 CFR 403.7, any new source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

Table 81 Open Formation — Dehydrated PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead used |
| | English units — used | lb/million lbs of lead |
| Copper | 2.15 | 1.02 |
| Lead | 0.47 | 0.21 |

0.07

0.01

Copper

Lead

| | Table 82 | |
|------|-------------|-----|
| Open | Formation — | Wet |
| _ | PSNS | |

| | FSNS | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | |
| | Metric units — | mg/kg of lead used |
| | English units — | - lb/million lbs of lead |
| | used | |
| Copper | 0.067 | 0.032 |
| Lead | 0.014 | 0.006 |
| | Table 83 Plate Soak PSNS | |
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — | - lb/million lbs of lead |
| | used | |
| Copper | 0.026 | 0.012 |
| Lead | 0.005 | 0.002 |
| · | · | |

Table 84 Battery Wash with Detergent PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|-----------------------------------|--------------------------------|
| | Metric units — mg/kg of lead used | |
| | English units — lb/million lbs of | |
| | lead used | |
| Copper | 1.152 | 0.549 |
| Lead | 0.252 | 0.117 |

Table 85 Direct Chill Lead Casting PSNS

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|---|-----------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — mg/kg of lead used English units — lb/million lbs of lead used | |
| Copper | 0.000256 | 0.000122 |
| Lead | 0.000056 | 0.000026 |

Table 86 Mold Release Formulation PSNS

| | 2 01 10 | |
|--------------------|--|--------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead | |
| | used | |
| Copper | 0.007 | 0.0037 |
| Lead | 0.0017 | 0.0008 |

Table 87 Truck Wash PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|-----------------------------------|---------------------------------------|
| | | mg/kg of lead in trucked batteries |
| | English units — lead in trucked l | - lb/million lbs of batteries |
| Copper | 0.006 | 0.003 |
| Lead | 0.001 | 0.0007 |
| | Table 88 Laundry PSNS | |
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — used | lb/million lbs of lead |

Table 89 Miscellaneous Wastewater Streams PSNS

0.14

0.03

| | PSNS | |
|------------------------------------|---|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of lead used |
| | English units — lb/million lbs of lead used | |
| Copper | 0.39 | 0.19 |
| Lead | 0.085 | 0.039 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 81 to 89.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

Subchapter V — Leclanche Subcategory

NR 255.40 Applicability; description of the Leclanche subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing Leclanche type batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.43 New source performance standards.

(1) The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 90 Foliar Battery Miscellaneous Wash NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — duced | mg/kg of cells pro- |
| | English units — produced | lb/million lbs of cells |
| Mercury | 0.010 | 0.004 |
| Zinc | 0.067 | 0.030 |
| Manganese | 0.019 | 0.015 |
| Oil and grease | 0.66 | 0.66 |
| TSS | 0.99 | 0.79 |
| pН | (1) | (1) |

¹Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than the battery manufacturing operation listed in table 90.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.44 Pretreatment standards for existing **sources.** (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

Table 91 Foliar Battery Miscellaneous Wash **PSES**

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
|--|--|--------------------------------|--|
| Metric units — mg/kg of cells produced | | | |
| | English units — lb/million lbs of cells produced | | |
| Mercury | 0.010 | 0.004 | |
| Zinc | 0.067 | 0.030 | |
| Manganese | 0.019 | 0.015 | |
| | | | |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than the battery manufacturing operation listed in table 91

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

255.45 Pretreatment standards for new **sources.** (1) Except as provided in 40 CFR 403.7, any new source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

Table 92 Foliar Battery Miscellaneous Wash

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of cells produced English units — lb/million lbs of cells | |
| | produced | |
| Mercury | 0.010 | 0.004 |
| Zinc | 0.067 | 0.030 |
| Manganese | 0.019 | 0.015 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than the battery manufacturing operation listed in table 92.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

Subchapter VI — Lithium Subcategory

NR 255.50 Applicability; description of the lithium subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing lithium anode batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.53 New source performance standards.

(1) The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 93 **Lead Iodide Cathodes NSPS**

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead |
| | English units — | lb/million lbs of lead |
| Chromium | 23.34 | 9.46 |
| Lead | 17.66 | 8.20 |
| Iron | 75.70 | 38.48 |
| TSS | 946.2 | 756.96 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 94 Iron Disulfide Cathodes **NSPS**

| | 11020 | |
|------------------------------------|---------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — fide | mg/kg of iron disul- |
| | English units — disulfide | lb/million lbs of iron |
| Chromium | 2.79 | 1.13 |
| Lead | 2.11 | 0.96 |
| Iron | 9.05 | 4.60 |
| TSS | 113.1 | 90.5 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 95 **Miscellaneous Wastewater Streams** NSPS

| | 1101 0 | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — duced | mg/kg of cells pro- |
| | English units — produced | lb/million lbs of cells |
| Chromium | 0.039 | 0.016 |
| Lead | 0.030 | 0.014 |
| Iron | 0.129 | 0.066 |
| TSS | 1.62 | 1.30 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 96 Air Scrubbers NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — duced | mg/kg of cells pro- |
| | English units — produced | lb/million lbs of cells |
| TSS | 434.0 | 207.0 |
| pН | $(^{1})$ | $(^{1})$ |

¹ Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 93 to 96

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.55 Pretreatment standards for new sources. (1) Except as provided in 40 CFR 403.7, any new source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

Table 97 Lead Iodide Cathodes PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of lead |
| | English units — | lb/million lbs of lead |
| Chromium | 23.34 | 9.46 |
| Lead | 17.66 | 8.20 |

Table 98 Iron Disulfide Cathodes PSNS

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|-----------------|------------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of iron |
| | disulfide | |
| | English units — | lb/million lbs of iron |
| | disulfide | |
| | | |
| Chromium | 2.79 | 1.13 |
| Lead | 2.11 | 0.96 |
| Chromium Lead | 2.79 2.11 | 1.13 0.96 |

Table 99 Miscellaneous Wastewater Streams PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of cells produced | |
| | English units — lb/million lbs of cells produced | |
| Chromium | 0.039 | 0.016 |
| Lead | 0.030 | 0.014 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 97 to 99.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

Subchapter VII — Magnesium Subcategory

NR 255.60 Applicability; description of the magnesium subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing magnesium anode batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.63 New source performance standards.

(1) The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 100 Silver Chloride Cathodes — Chemically Reduced NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|----------------------------------|--------------------------------|
| | Metric units — processed | mg/kg of silver |
| | English units — silver processed | lb/million lbs of |
| Lead | 22.93 | 10.65 |
| Silver | 23.75 | 9.83 |
| Iron | 98.28 | 49.96 |
| TSS | 1,228.5 | 982.8 |
| COD | 4,095.0 | 1,999.0 |
| pН | (1) | (1) |

 $^{^{1}}$ Within the range of 7.5 to 10.0 at all times.

Table 101 Silver Chloride Cathodes — Electrolytic NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|----------------------------------|--------------------------------|
| | Metric units — processed | mg/kg of silver |
| | English units — silver processed | lb/million lbs of |
| Lead | 40.6 | 18.9 |
| Silver | 42.1 | 17.4 |
| Iron | 174.0 | 86.5 |
| TSS | 2,175.0 | 1,740.0 |
| COD | 7,250.0 | 3,540.0 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 102 Cell Testing NSPS

| 1431 3 | | | |
|------------------------------------|--------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — produced | mg/kg of cells | |
| | English units — produced | lb/million lbs of cells | |
| Lead | 19.5 | 7.89 | |
| Silver | 15.3 | 6.31 | |
| Iron | 63.1 | 32.1 | |
| TSS | 789.0 | 631.2 | |
| COD | 2,630.0 | 1,290.0 | |
| pН | (1) | (1) | |

MAXIMUM FOR

POLLUTANT OR

Table 103 Floor and Equipment Wash NSPS

| | NSFS | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — duced | mg/kg of cells pro- |
| | English units — produced | lb/million lbs of cells |
| Lead | 0.026 | 0.012 |
| Silver | 0.027 | 0.011 |
| Iron | 0.112 | 0.057 |
| COD | 1.41 | 1.13 |
| TSS | 4.70 | 2.30 |
| pH | $(^{1})$ | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 104 Air Scrubber

| | NSFS | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — duced | mg/kg of cells pro- |
| | English units — produced | lb/million lbs of cells |
| TSS | 8,467.0 | 4,030.0 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 100 to 104.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.64 Pretreatment standards for existing sources. (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

Table 105
Silver Chloride Cathodes — Chemically Reduced
PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVER- AGE |
|------------------------------------|----------------------------------|-------------------------------------|
| | Metric units — processed | mg/kg of silver |
| | English units — silver processed | - lb/million lbs of l |
| Lead | 1,032.36 | 491.60 |
| Silver | 1,007.78 | 417.86 |

Table 106 Silver Chloride Cathodes — Electrolytic PSES

MAXIMUM FOR

| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — processed | mg/kg of silver |
| | | - lb/million lbs of |
| | silver processed | l . |
| Lead | 60.9 | 29.0 |
| Silver | 59.5 | 24.7 |
| Table 107 Cell Testing PSES | | |
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — produced | mg/kg of cells |
| | English units — produced | lb/million lbs of cells |
| Lead | 22.1 | 10.5 |
| Silver | 21.6 | 8.9 |
| | T-1.1. 100 | |

Table 108 Floor and Equipment Wash

| | PSES | |
|--------------------|--------------------------|-------------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — produced | mg/kg of cells |
| | English units — produced | lb/million lbs of cells |
| Lead | 0.039 | 0.018 |
| Silver | 0.038 | 0.105 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 105 to 108.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.65 Pretreatment standards for new sources. (1) Except as provided in 40 CFR 403.7, any new source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

¹ Within the range of 7.5 to 10.0 at all times.

Table 109
Silver Chloride Cathodes — Chemically Reduced
PSNS

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|--|----------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of silver pro- |
| | cessed | |
| | English units — lb/million lbs of sil- | |
| | ver processed | |
| Lead | 22.93 | 10.65 |
| Silver | 23.75 | 9.83 |
| | | |

Table 110 Silver Chloride Cathodes — Electrolytic PSNS

| | 1 01 10 | |
|--------------------------------|-----------------------------------|-----------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| Metric units — mg/kg of silver | | |
| | processed | |
| | English units — lb/million lbs of | |
| | silver processed | |
| Lead | 40.6 | 18.9 |
| Silver | 42.1 | 17.4 |

Table 111 Cell Testing PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of cells produced | |
| | English units — lb/million lbs of cells produced | |
| Lead | 19.5 | 7.89 |
| Silver | 15.3 | 6.31 |

Table 112 Floor and Equipment Wash PSNS

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|--|-----------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — produced | mg/kg of cells |
| | English units — lb/million lbs of coproduced | |
| Lead | 0.026 | 0.012 |
| Silver | 0.027 | 0.001 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 109 to 112.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

Subchapter VIII — Zinc Subcategory

NR 255.70 Applicability; description of the zinc subcategory. This subchapter applies to the discharge of pollutants to waters of the state and the introduction of pollutants into POTWs from manufacturing zinc anode batteries.

History: Cr. Register, November, 1987, No. 383, eff. 12-1-87.

NR 255.71 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available. (1) Except as provided in 40 CFR 125.30 to 125.32, any existing source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BPT:

Table 113 Wet Amalgamated Powder Anodes BPT

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|---------------------------|------------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — mg/kg zinc | |
| | English units — | lb/million lbs of zinc |
| Chromium | 1.67 | 0.68 |
| Mercury | 0.95 | 0.38 |
| Silver | 1.56 | 0.65 |
| Zinc | 5.55 | 2.32 |
| Manganese | 2.58 | 1.10 |
| Oil and grease | 76.0 | 45.6 |
| TSS | 155.8 | 74.1 |
| pН | $(^{1})$ | (1) |

1 Within the range of 7.5 to 10.0 at all times.

Table 114
Gelled Amalgam Anodes
RPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
|------------------------------------|--------------------------|--------------------------------|--|
| | Metric units — | Metric units — mg/kg of zinc | |
| | English units — | lb/million lbs of zinc | |
| Chromium | 0.30 | 0.12 | |
| Mercury | 0.17 | 0.07 | |
| Silver | 0.28 | 0.12 | |
| Zinc | 0.99 | 0.42 | |
| Manganese | 0.46 | 0.20 | |
| Oil and grease | 13.6 | 8.16 | |
| TSS | 27.9 | 13.26 | |
| pН | $(^{1})$ | (1) | |

 1 Within the range of 7.5 to 10.0 at all times.

Table 115 Zinc Oxide, Formed Anodes BPT

| | DI I | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 62.9 | 25.7 |
| Mercury | 35.8 | 14.3 |
| Silver | 58.7 | 24.3 |
| Zinc | 208.8 | 87.2 |
| Manganese | 97.2 | 41.5 |
| Oil and grease | 2,860.0 | 1,716.0 |
| TSS | 5,863.0 | 2,789.0 |
| pН | $(^{1})$ | (1) |

Table 116 Electrodeposited Anodes BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|---------------------------|--------------------------------|
| | Metric units — deposited | mg/kg of zinc |
| | English units — deposited | - lb/million lbs of zinc |
| Chromium | 1,404.0 | 574.0 |
| Mercury | 798.0 | 319.0 |
| Silver | 1,308.0 | 543.0 |
| Zinc | 4,657.0 | 1,948.0 |
| Manganese | 2,169.0 | 925.0 |
| Oil and grease | 63,800.0 | 38,280.0 |
| TSS | 130,700.0 | 62,210.0 |
| pH | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 117 Silver Powder, Formed Cathodes BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 86.2 | 35.3 |
| Mercury | 49.0 | 19.6 |
| Silver | 80.4 | 33.3 |
| Zinc | 286.2 | 119.6 |
| Manganese | 133.3 | 56.8 |
| Oil and grease | 3,920.0 | 2,350.0 |
| TSS | 8,036.0 | 3,822.0 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 118 Silver Oxide Powder, Formed Cathodes

| Dri | | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 57.7 | 23.6 |
| Mercury | 32.8 | 13.1 |
| Silver | 53.7 | 22.3 |
| Zinc | 191.3 | 79.9 |
| Manganese | 89.1 | 38.0 |
| Oil and grease | 2,620.0 | 1,570.0 |
| TSS | 5,370.0 | 2,554.0 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 119 Silver Peroxide Cathodes BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of silver applied | |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 13.8 | 5.65 |
| Mercury | 7.85 | 3.14 |
| Silver | 12.9 | 5.34 |
| Zinc | 45.8 | 19.2 |
| Manganese | 21.4 | 9.11 |
| Oil and grease | 628.0 | 377.0 |
| TSS | 1,287.0 | 612.0 |
| pH | (1) | $(^1)$ |

¹ Within the range of 7.5 to 10.0 at all times.

Table 120 Nickel Impregnated Cathodes BPT

| | DI I | |
|------------------------------------|-----------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — applied | mg/kg of nickel |
| | English units - nickel applied | — lb/million lbs of |
| Chromium | 721.6 | 295.2 |
| Mercury | 410.0 | 164.0 |
| Nickel | 3,149.0 | 2,083.0 |
| Silver | 672.4 | 279.0 |
| Zinc | 2,394.4 | 1,000.4 |
| Manganese | 1,115.2 | 475.6 |
| Oil and grease | 32,800.0 | 19,680.0 |
| TSS | 67,240.0 | 31,980.0 |
| рН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 121 Miscellaneous Wastewater Streams RPT

| BPI | | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — produced | mg/kg of cells |
| | English units — produced | lb/million lbs of cells |
| Chromium | 3.85 | 1.58 |
| Cyanide | 2.54 | 1.05 |
| Mercury | 2.19 | 0.68 |
| Nickel | 16.82 | 11.12 |
| Silver | 3.59 | 1.49 |
| Zinc | 12.79 | 5.34 |
| Manganese | 5.96 | 2.54 |
| Oil and grease | 175.20 | 105.12 |
| TSS | 359.16 | 170.82 |
| pH | (1) | (1) |
| Within the newses of 7.5 to 10. | O at all times | |

¹ Within the range of 7.5 to 10.0 at all times.

 $^{^{\}rm 1}$ Within the range of 7.5 to 10.0 at all times.

Table 122 Silver Etch BPT

| DI I | | | |
|------------------------------------|----------------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — processed | mg/kg of silver | |
| | English units — silver processed | lb/million lbs of | |
| Chromium | 21.6 | 8.84 | |
| Mercury | 12.3 | 4.91 | |
| Silver | 20.2 | 8.35 | |
| Zinc | 71.7 | 30.0 | |
| Manganese | 33.4 | 14.3 | |
| Oil and grease | 982.0 | 589.2 | |
| TSS | 2,013.1 | 957.5 | |
| pН | (1) | (1) | |

Within the range of 7.5 to 10.0 at all times.

Table 123 Silver Peroxide Production BPT

| | 211 | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of silver in |
| | silver peroxide | produced |
| | English units — | - lb/million lbs of |
| | silver in silver p | peroxide produced |
| Chromium | 23.0 | 9.40 |
| Mercury | 13.1 | 5.22 |
| Silver | 21.4 | 8.88 |
| Zinc | 76.2 | 31.80 |
| Manganese | 35.5 | 15.10 |
| Oil and grease | 1,044.0 | 627.00 |
| TSS | 2,140.0 | 1,018.00 |
| pН | $(^{1})$ | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 124 Silver Powder Production BPT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of silver powder produced | |
| | English units — silver powder p | - lb/million lbs of roduced |
| Chromium | 9.33 | 3.82 |
| Mercury | 5.30 | 2.12 |
| Silver | 8.69 | 3.61 |
| Zinc | 30.95 | 12.93 |
| Manganese | 14.42 | 6.15 |
| Oil and grease | 424.0 | 254.40 |
| TSS | 869.0 | 413.40 |
| рН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

than those battery manufacturing operations listed in tables 113 to 124.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable. (1) Except as provided in 40 CFR 125.30 to 125.32, any existing source subject to this subchapter shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BAT:

Table 125 Wet Amalgamated Powder Anodes BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 0.24 | 0.099 |
| Mercury | 0.14 | 0.056 |
| Silver | 0.23 | 0.093 |
| Zinc | 0.80 | 0.34 |
| Manganese | 0.37 | 0.16 |

Table 126 Gelled Amalgam Anodes BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 0.030 | 0.012 |
| Mercury | 0.017 | 0.007 |
| Silver | 0.028 | 0.012 |
| Zinc | 0.099 | 0.042 |
| Manganese | 0.046 | 0.020 |

Table 127 Zinc Oxide Formed Anodes BAT

| | DAI | |
|--------------------|-----------------|------------------------|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 9.53 | 3.90 |
| Mercury | 5.42 | 2.17 |
| Silver | 8.89 | 3.68 |
| Zinc | 31.64 | 13.22 |
| Manganese | 14.74 | 6.28 |

⁽²⁾ There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other

Table 128 Electrodeposited Anodes BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|---------------------------|--------------------------------|
| | Metric units — deposited | mg/kg of zinc |
| | English units — deposited | lb/million lbs of zinc |
| Chromium | 94.47 | 38.65 |
| Mercury | 53.68 | 21.47 |
| Silver | 88.03 | 36.50 |
| Zinc | 313.46 | 130.97 |
| Manganese | 146.00 | 62.26 |

Table 129 Silver Powder Formed Cathodes BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 13.07 | 5.35 |
| Mercury | 7.43 | 2.97 |
| Silver | 12.18 | 5.05 |
| Zinc | 43.36 | 18.12 |
| Manganese | 20.20 | 8.61 |

Table 130 Silver Oxide Powder Formed Cathodes BAT

| 2.11 | | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | lb/million lbs of |
| Chromium | 8.73 | 3.57 |
| Mercury | 4.96 | 1.99 |
| Silver | 8.14 | 3.37 |
| Zinc | 28.96 | 12.11 |
| Manganese | 13.50 | 5.76 |

Table 131 Silver Peroxide Cathodes BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | -lb/million lbs of |
| Chromium | 2.09 | 0.87 |
| Mercury | 1.19 | 9.48 |
| Silver | 1.95 | 0.81 |
| Zinc | 6.95 | 2.90 |
| Manganese | 3.24 | 1.38 |

Table 132 Nickel Impregnated Cathodes BAT

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of nickel applied | |
| | English units – nickel applied | – lb/million lbs of |
| Chromium | 88.0 | 36.0 |
| Mercury | 50.0 | 20.0 |
| Nickel | 384.0 | 254.0 |
| Silver | 82.0 | 34.0 |
| Zinc | 292.0 | 122.0 |
| Manganese | 136.0 | 58.0 |

Table 133 Miscellaneous Wastewater Streams BAT

| DAI | | | |
|--|--------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| Metric units — mg/kg of cells produced | | mg/kg of cells | |
| | English units — produced | lb/million lbs of cells | |
| Chromium | 0.57 | 0.23 | |
| Cyanide | 0.38 | 0.16 | |
| Mercury | 0.32 | 0.13 | |
| Nickel | 2.48 | 1.64 | |
| Silver | 0.53 | 0.22 | |
| Zinc | 1.88 | 0.79 | |
| Manganese | 0.88 | 0.37 | |

Table 134 Silver Etch BAT

| BAI | | | |
|--------------------|----------------------------------|-------------------|--|
| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR | |
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE | |
| | Metric units — processed | mg/kg of silver | |
| | English units — silver processed | lb/million lbs of | |
| Chromium | 3.27 | 1.34 | |
| Mercury | 1.86 | 0.74 | |
| Silver | 3.05 | 1.26 | |
| Zinc | 10.86 | 4.54 | |
| Manganese | 5.06 | 2.16 | |

Table 135 Silver Peroxide Production BAT

| | D.111 | |
|------------------------------------|--|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — mg/kg of silver in silver peroxide produced | |
| | English units — lb/million lbs of silver in silver peroxide produced | |
| Chromium | 3.48 | 1.42 |
| Mercury | 1.96 | 0.79 |
| Silver | 3.24 | 1.34 |
| Zinc | 11.56 | 4.83 |
| Manganese | 5.36 | 2.29 |

Table 136 Silver Powder Production BAT

| D/11 | | | |
|---|----------------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| Metric units — mg/kg of silver pow- der produced | | mg/kg of silver pow- | |
| | English units — silver powder pr | lb/million lbs of roduced | |
| Chromium | 1.41 | 0.58 | |
| Mercury | 0.80 | 0.32 | |
| Silver | 1.32 | 0.55 | |
| Zinc | 4.69 | 1.96 | |
| Manganese | 2.18 | 0.93 | |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 125 to 136.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.73 New source performance standards.

(1) The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 137
Zinc Oxide Formed Anodes
NSPS

| | NSFS | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 4.55 | 1.97 |
| Mercury | 2.82 | 1.19 |
| Silver | 4.55 | 1.97 |
| Zinc | 0.87 | 0.39 |
| Manganese | 6.50 | 4.98 |
| Oil and grease | 216.7 | 216.7 |
| TSS | 325.0 | 260.0 |
| Ha | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 138 Electrodeposited Anodes NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | |
|------------------------------------|---------------------------|--------------------------|
| | Metric units — deposited | - mg/kg of zinc |
| | English units – deposited | – lb/million lbs of zinc |
| Chromium | 45.09 | 19.54 |
| Mercury | 27.91 | 11.81 |
| Silver | 45.09 | 19.54 |
| Zinc | 8.59 | 3.86 |
| Manganese | 64.41 | 49.38 |
| Oil and grease | 2,147.00 | 2,147.00 |
| TSS | 3,220.50 | 2,576.40 |
| pН | $(^{1})$ | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 139 Silver Powder Formed Cathodes NSPS

| MAXIMUM FOR ANY 1 DAY MAXIMUM FOR MONTHLY AVERAGE | | 11010 | |
|---|----------------|--------|---------------------|
| applied English units — lb/million lbs of silver applied Chromium 6.24 2.70 Mercury 3.86 1.63 Silver 6.24 2.70 Zinc 1.19 0.53 Manganese 8.91 6.83 Oil and grease 297.00 297.00 TSS 445.5 356.40 | | | |
| silver applied Chromium 6.24 2.70 Mercury 3.86 1.63 Silver 6.24 2.70 Zinc 1.19 0.53 Manganese 8.91 6.83 Oil and grease 297.00 297.00 TSS 445.5 356.40 | | | mg/kg of silver |
| Mercury 3.86 1.63 Silver 6.24 2.70 Zinc 1.19 0.53 Manganese 8.91 6.83 Oil and grease 297.00 297.00 TSS 445.5 356.40 | | | - lb/million lbs of |
| Silver 6.24 2.70 Zinc 1.19 0.53 Manganese 8.91 6.83 Oil and grease 297.00 297.00 TSS 445.5 356.40 | Chromium | 6.24 | 2.70 |
| Zinc 1.19 0.53 Manganese 8.91 6.83 Oil and grease 297.00 297.00 TSS 445.5 356.40 | Mercury | 3.86 | 1.63 |
| Manganese 8.91 6.83 Oil and grease 297.00 297.00 TSS 445.5 356.40 | Silver | 6.24 | 2.70 |
| Oil and grease 297.00 297.00 TSS 445.5 356.40 | Zinc | 1.19 | 0.53 |
| TSS 445.5 356.40 | Manganese | 8.91 | 6.83 |
| | Oil and grease | 297.00 | 297.00 |
| pH (1) (1) | TSS | 445.5 | 356.40 |
| | pH | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 140 Silver Oxide Powder Formed Cathodes NSPS

| 11515 | | |
|------------------------------------|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 4.17 | 1.81 |
| Mercury | 2.58 | 1.09 |
| Silver | 4.17 | 1.81 |
| Zinc | 0.79 | 0.36 |
| Manganese | 5.96 | 4.57 |
| Oil and grease | 198.5 | 198.5 |
| TSS | 297.8 | 238.2 |
| pН | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 141 Silver Peroxide Cathodes **NSPS**

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | lb/million lbs of |
| Chromium | 1.00 | 0.43 |
| Mercury | 0.62 | 0.26 |
| Silver | 1.00 | 0.43 |
| Zinc | 0.19 | 0.09 |
| Manganese | 1.43 | 1.09 |
| Oil and grease | 47.6 | 47.6 |
| TSS | 71.4 | 57.1 |
| pH | (1) | $(^{1})$ |

Within the range of 7.5 to 10.0 at all times.

Table 142 Nickel Impregnated Cathodes NSPS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|------------------------------|--------------------------------|
| | Metric units — applied | mg/kg of nickel |
| | English units nickel applied | — lb/million lbs of |
| Chromium | 42.0 | 18.2 |
| Mercury | 26.0 | 11.0 |
| Nickel | 42.0 | 18.2 |
| Silver | 42.0 | 18.2 |
| Zinc | 8.0 | 3.6 |
| Manganese | 60.0 | 46.0 |
| Oil and grease | 2,000.0 | 2,000.0 |
| TSS | 3,000.0 | 2,400.0 |
| На | (1) | (1) |

Within the range of 7.5 to 10.0 at all times.

Table 143 Miscellaneous Wastewater Streams NSPS

| | TIDED | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — produced | mg/kg of cells |
| | English units — produced | -lb/million lbs of cells |
| Chromium | 0.27 | 0.12 |
| Cyanide | 0.039 | 0.016 |
| Mercury | 0.17 | 0.07 |
| Nickel | 0.27 | 0.12 |
| Silver | 0.27 | 0.12 |
| Zinc | 0.05 | 0.02 |
| Manganese | 0.39 | 0.30 |
| Oil and grease | 12.90 | 12.90 |
| TSS | 19.35 | 15.48 |
| pН | (1) | (1) |
| | | |

¹ Within the range of 7.5 to 10.0 at all times.

Table 144 Silver Etch **NSPS**

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|----------------------------------|--------------------------------|
| | Metric units — processed | mg/kg silver |
| | English units — silver processed | - lb/million lbs of l |
| Chromium | 1.56 | 0.68 |
| Mercury | 0.97 | 0.41 |
| Silver | 1.56 | 0.68 |
| Zinc | 0.30 | 0.13 |
| Manganese | 2.23 | 1.71 |
| Oil and grease | 74.40 | 74.40 |
| TSS | 111.60 | 89.28 |
| pН | (1) | (1) |

¹ Within the range of 7.5 to 10.0 at all times.

Table 145 Silver Peroxide Production NSPS

| 11010 | | | |
|------------------------------------|--------------------------------|--|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — silver peroxide | mg/kg of silver in produced | |
| | | - lb/million lbs of peroxide produced | |
| Chromium | 1.66 | 0.72 | |
| Mercury | 1.03 | 0.44 | |
| Silver | 1.66 | 0.72 | |
| Zinc | 0.32 | 0.14 | |
| Manganese | 2.37 | 1.82 | |
| Oil and grease | 79.10 | 79.10 | |
| TSS | 118.65 | 94.92 | |
| pН | $(^1)$ | (1) | |

¹ Within the range of 7.5 to 10.0 at all times.

Table 146 Silver Powder Production NSPS

| 1101 0 | | | |
|------------------------------------|----------------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — powder produce | | |
| | English units — silver powder pr | - lb/million lbs of roduced | |
| Chromium | 0.67 | 0.29 | |
| Mercury | 0.42 | 0.18 | |
| Silver | 0.67 | 0.29 | |
| Zinc | 0.13 | 0.06 | |
| Manganese | 0.96 | 0.74 | |
| Oil and grease | 32.10 | 32.10 | |
| TSS | 48.15 | 38.52 | |
| pН | (1) | (1) | |

⁽²⁾ There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other

than those battery manufacturing operations listed in tables 137 to 146.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.74 Pretreatment standards for existing sources. (1) Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources:

Table 147 Wet Amalgamated Powder Anode PSES

| | ISES | |
|------------------------------------|--------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| TOLLUTANTTROTERTT | | |
| Metric units — mg/kg of zinc | | |
| | English units — | lb/million lbs of zinc |
| Chromium | 0.24 | 0.099 |
| Mercury | 0.14 | 0.055 |
| Silver | 0.23 | 0.093 |
| Zinc | 0.80 | 0.34 |
| Manganese | 0.37 | 0.16 |

Table 148 Gelled Amalgam Anodes PSES

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|-----------------|------------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 0.030 | 0.12 |
| Mercury | 0.017 | 0.006 |
| Silver | 0.028 | 0.012 |
| Zinc | 0.099 | 0.042 |
| Manganese | 0.046 | 0.020 |

Table 149 Zinc Oxide Formed Anodes PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 9.53 | 3.90 |
| Mercury | 5.42 | 2.17 |
| Silver | 8.89 | 3.68 |
| Zinc | 31.64 | 13.22 |
| Manganese | 14.74 | 6.28 |

Table 150 Electrodeposited Anodes PSES

| ISES | | | |
|--|---------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| Metric units — mg/kg of zinc deposited | | | |
| | English units — deposited | lb/million lbs of zinc | |
| Chromium | 94.47 | 38.65 | |
| Mercury | 53.68 | 21.47 | |
| Silver | 88.03 | 36.50 | |
| Zinc | 313.46 | 130.97 | |
| Manganese | 146.00 | 62.26 | |

Table 151 Silver Powder Formed Cathodes PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units — applied | mg/kg of silver |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 13.07 | 5.35 |
| Mercury | 7.43 | 2.97 |
| Silver | 12.18 | 5.05 |
| Zinc | 43.36 | 18.12 |
| Manganese | 20.20 | 8.61 |

Table 152 Silver Oxide Powder Formed Cathodes PSES

| ISES | | | |
|------------------------------------|--------------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — applied | mg/kg of silver | |
| | English units — silver applied | - lb/million lbs of | |
| Chromium | 8.73 | 3.57 | |
| Mercury | 4.96 | 1.99 | |
| Silver | 8.14 | 3.37 | |
| Zinc | 28.98 | 12.11 | |
| Manganese | 13.50 | 5.76 | |
| | | | |

Table 153 Silver Peroxide Cathodes PSES

| ISES | | | |
|------------------------------------|--------------------------------|--------------------------------|--|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE | |
| | Metric units — applied | mg/kg of silver | |
| | English units — silver applied | lb/million lbs of | |
| Chromium | 2.09 | 0.87 | |
| Mercury | 1.19 | 0.48 | |
| Silver | 1.95 | 0.81 | |
| Zinc | 6.95 | 2.90 | |
| Manganese | 3.24 | 1.38 | |
| | | | |

Table 154 Nickel Impregnated Cathodes PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR MAXIMUM ANY 1 DAY MONTHLY AVE | |
|------------------------------------|--|-------|
| | Metric units — mg/kg of nickel applied | |
| | English units — lb/million ll nickel applied | bs of |
| Chromium | 88.0 36. | 0 |
| Mercury | 50.0 20. | 0 |
| Nickel | 384.0 254. | 0 |
| Silver | 82.0 34. | 0 |
| Zinc | 292.0 122. | 0 |
| Manganese | 136.0 58. | 0 |
| | | |

Table 155 Miscellaneous Wastewater Streams PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of cells produced | |
| | English units — produced | -lb/million lbs of cells |
| Chromium | 0.57 | 0.23 |
| Cyanide | 0.38 | 0.16 |
| Mercury | 0.32 | 0.13 |
| Nickel | 2.48 | 1.64 |
| Silver | 0.53 | 0.22 |
| Zinc | 1.88 | 0.79 |
| Manganese | 0.88 | 0.37 |

Table 156 Silver Etch PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|----------------------------------|--------------------------------|
| | Metric units — processed | mg/kg of silver |
| | English units — silver processed | lb/million lbs of |
| Chromium | 3.27 | 1.34 |
| Mercury | 1.86 | 0.74 |
| Silver | 3.05 | 1.26 |
| Zinc | 10.86 | 4.54 |
| Manganese | 5.06 | 2.16 |
| | | |

Table 157 Silver Peroxide Production PSES

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--|
| | Metric units — silver peroxide | mg/kg of silver in produced |
| | _ | - lb/million lbs of peroxide produced |
| Chromium | 3.48 | 1.42 |
| Mercury | 1.98 | 0.79 |
| Silver | 3.24 | 1.34 |
| Zinc | 11.55 | 4.83 |
| Manganese | 5.38 | 2.29 |

Table 158 Silver Powder Production PSES

| ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|--|---|
| Metric units — mg/kg of silver powder produced | |
| English units — lb/million lbs of silver powder produced | |
| 1.41 | 0.58 |
| 0.80 | 0.32 |
| 1.32 | 0.55 |
| 4.69 | 1.96 |
| 2.18 | 0.93 |
| | Metric units — powder produce English units — silver powder produce 1.41 0.80 1.32 4.69 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 147 to 158.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

NR 255.75 Pretreatment standards for new sources. (1) Except as provided in 40 CFR 403.7, any new source subject to this subchapter that introduces pollutants into a POTW shall comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources:

Table 159
Zinc Oxide Formed Anodes
PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------|--------------------------------|
| | Metric units — | mg/kg of zinc |
| | English units — | lb/million lbs of zinc |
| Chromium | 4.55 | 1.97 |
| Mercury | 2.82 | 1.19 |
| Silver | 4.55 | 1.97 |
| Zinc | 0.87 | 0.39 |
| Manganese | 6.50 | 4.98 |

Table 160 Electrodeposited Anodes PSNS

| 15115 | | |
|------------------------------------|------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units —: deposited | mg/kg of zinc |
| | English units — deposited | lb/million lbs of zinc |
| Chromium | 45.09 | 19.54 |
| Mercury | 27.91 | 11.81 |
| Silver | 45.09 | 19.54 |
| Zinc | 8.59 | 3.86 |
| Manganese | 64.41 | 49.38 |

Table 161 Silver Powder Formed Cathodes PSNS

| POLLUTANT OR | MAXIMUM FOR | MAXIMUM FOR |
|--------------------|--|---------------------|
| POLLUTANT PROPERTY | ANY 1 DAY | MONTHLY AVERAGE |
| | Metric units — mg/kg of silver applied | |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 6.24 | 2.70 |
| Mercury | 3.86 | 1.63 |
| Silver | 6.24 | 2.70 |
| Zinc | 1.19 | 0.53 |
| Manganese | 8.91 | 6.83 |
| • | | |

Table 162 Silver Oxide Powder Formed Cathodes PSNS

| 1 51 15 | | |
|--|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| Metric units — mg/kg of silver applied | | |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 4.17 | 1.81 |
| Mercury | 2.58 | 1.09 |
| Silver | 4.17 | 1.81 |
| Zinc | 0.79 | 0.36 |
| Manganese | 5.96 | 4.57 |

Table 163 Silver Peroxide Cathodes PSNS

| 15145 | | |
|--|--------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| Metric units — mg/kg of silver applied | | |
| | English units — silver applied | - lb/million lbs of |
| Chromium | 1.00 | 0.43 |
| Mercury | 0.62 | 0.26 |
| Silver | 1.00 | 0.43 |
| Zinc | 0.19 | 0.09 |
| Manganese | 1.43 | 1.09 |

Table 164 Nickel Impregnated Cathodes PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--------------------------------|--------------------------------|
| | Metric units – applied | - mg/kg of nickel |
| | English units – nickel applied | — lb/million lbs of |
| Chromium | 42.0 | 18.2 |
| Mercury | 26.0 | 11.0 |
| Nickel | 42.0 | 18.2 |
| Silver | 42.0 | 18.2 |
| Zinc | 8.0 | 3.6 |
| Manganese | 60.0 | 46.0 |

Table 165 Miscellaneous Wastewater Streams PSNS

| 1 51 15 | | |
|------------------------------------|--|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — mg/kg of cells produced | |
| | English units — produced | lb/million lbs of cells |
| Chromium | 0.27 | 0.12 |
| Cyanide | 0.039 | 0.016 |
| Mercury | 0.17 | 0.07 |
| Nickel | 0.27 | 0.12 |
| Silver | 0.27 | 0.12 |
| Zinc | 0.05 | 0.02 |
| Manganese | 0.39 | 0.30 |

Table 166 Silver Etch PSNS

| rono | | |
|------------------------------------|----------------------------------|--------------------------------|
| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
| | Metric units — processed | mg/kg of silver |
| | English units — silver processed | lb/million lbs of |
| Chromium | 1.56 | 0.68 |
| Mercury | 0.97 | 0.41 |
| Silver | 1.56 | 0.68 |
| Zinc | 0.30 | 0.13 |
| Manganese | 2.23 | 1.71 |

Table 167 Silver Peroxide Production PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|-------------------------------------|
| | Metric units — mg/kg of silver in silver peroxide produced | |
| | | lb/million lbs of peroxide produced |
| Chromium | 1.66 | 0.72 |
| Mercury | 1.03 | 0.44 |
| Silver | 1.66 | 0.72 |
| Zinc | 0.32 | 0.14 |
| Manganese | 2.37 | 1.82 |

Table 168 Silver Powder Production PSNS

| POLLUTANT OR POLLUTANT PROPERTY | MAXIMUM FOR ANY 1 DAY | MAXIMUM FOR MONTHLY AVERAGE |
|------------------------------------|--|--------------------------------|
| | Metric units — mg/kg of silver powder produced | |
| | English units — lb/million lbs of silver powder produced | |
| Chromium | 0.67 | 0.29 |
| Mercury | 0.42 | 0.18 |
| Silver | 0.67 | 0.29 |
| Zinc | 0.13 | 0.06 |
| Manganese | 0.96 | 0.74 |

(2) There may be no discharge allowance for process wastewater pollutants from any battery manufacturing operation other than those battery manufacturing operations listed in tables 159 to 168.

History: Cr. Register, November, 1987, No. 383, eff. 12–1–87.

NR 255.80 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:

| Code of Federal Regulations | Corresponding State References | |
|---|-----------------------------------|--|
| 40 CFR Part 401 | ch. NR 205 | |
| 40 CFR 403.6 (e) | s. NR 211.12 | |
| 40 CFR 125.30 to 125.32 | s. 283.13 (3), Stats. | |
| History: Cr. Register, November, 1987, No. 383, eff. 12–1–87. | | |