

## Chapter NR 255

## BATTERY MANUFACTURING

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**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**

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	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
pH	(1)	(1)

<sup>1</sup> 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)

<sup>1</sup> 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 cadmium		
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 4  
Nickel Electrodeposited Cathodes  
BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of nickel applied		
English units — lb/million lbs of nickel applied		
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 5**  
**Nickel Impregnated Cathodes**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of nickel applied	
	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
pH	(1)	(1)

<sup>1</sup> 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 — mg/kg of cells produced	
	English units — lb/million lbs of cells produced	
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 7**  
**Cadmium Powder Production**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium powder produced	
	English units — lb/million lbs of cadmium powder 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)

<sup>1</sup> 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	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver powder produced	
	English units — lb/million lbs of silver powder 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
pH	(1)	(1)

<sup>1</sup> 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 — mg/kg of cadmium used	
	English units — lb/million lbs of cadmium used	
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 10**  
**Nickel Hydroxide Production**  
**BPT**

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	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
pH	(1)	(1)

<sup>1</sup> 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  
BAT**

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	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  
BAT**

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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR 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 POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium powder produced	
	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 16  
Silver Powder Production  
BAT**

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	
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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium used	
	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 — 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 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 — lb/million lbs of cadmium	
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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — 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
Oil and grease	2,000.0	2,000.0
TSS	3,000.0	2,400.0
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 21**  
**Nickel Electrodeposited Cathodes**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of nickel applied	
	English units — lb/million lbs of nickel applied	
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 22**  
**Miscellaneous Wastewater Streams**  
**NSPS**

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	0.47	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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 23**  
**Cadmium Powder Production**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium powder produced	
	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
Oil and grease	65.70	65.70
TSS	98.55	78.84
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 24**  
**Silver Powder Production**  
**NSPS**

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	
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 25**  
**Cadmium Hydroxide Production**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium used	
	English units — lb/million lbs of cadmium used	
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
pH	(1)	(1)

<sup>1</sup> 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 — lb/million lbs of nickel used	
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
pH	(1)	(1)

<sup>1</sup> 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**

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	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 — 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 29**  
**Nickel Electrodeposited Cathodes**  
**PSES**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR 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 30**  
**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 — 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 31**  
**Cadmium Powder Production**  
**PSES**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium powder produced	
	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**

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	
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 — mg/kg of cadmium used	
	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	0.012

**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 — lb/million lbs of cadmium	
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**

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	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 — lb/million lbs of nickel applied	
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**

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	0.47	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 — mg/kg of cadmium powder produced	
	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 — lb/million lbs of silver powder produced	
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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of cadmium used	
	English units — lb/million lbs of cadmium used	
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**

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	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**

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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 44**

**Open Formation — Dehydrated 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	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
pH	(1)	(1)

<sup>1</sup> 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 — mg/kg of lead used		
English units — lb/million lbs of lead used		
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
pH	(1)	(1)

<sup>1</sup> 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)

<sup>1</sup> 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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 48**  
**Battery Wash — Water Only 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	1.12	0.59
Lead	0.25	0.12
Iron	0.71	0.36
Oil and grease	11.80	7.08
TSS	24.19	11.51
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 49**  
**Direct Chill Lead Casting**  
**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	0.00040	0.00020
Lead	0.00008	0.00004
Iron	0.00020	0.00010
Oil and grease	0.00400	0.00200
TSS	0.00800	0.00300
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 51**  
**Truck Wash**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of lead in trucked batteries		
English units — lb/million lbs of lead in trucked batteries		
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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 52**  
**Laundry**  
**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	0.21	0.11
Lead	0.05	0.02
Iron	0.13	0.07
Oil and grease	2.18	1.31
TSS	4.47	2.13
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 53**  
**Miscellaneous Wastewater Streams**  
**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	0.81	0.43
Lead	0.18	0.09
Iron	0.51	0.26
Oil and grease	8.54	5.12
TSS	17.51	8.33
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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:

**Table 54**  
**Open Formation — Dehydrated**  
**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	3.19	1.68
Lead	0.71	0.34
Iron	2.02	1.02

**Table 55**  
**Open Formation — Wet**  
**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	0.100	0.053
Lead	0.022	0.010
Iron	0.06	0.03

**Table 56**  
**Plate Soak**  
**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	0.039	0.021
Lead	0.008	0.004
Iron	0.030	0.010

**Table 57**  
**Battery Wash with Detergent**  
**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	1.71	0.90
Lead	0.38	0.18
Iron	1.08	0.55

**Table 58**  
**Direct Chill Lead Casting**  
**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	0.0004	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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of lead in trucked batteries	
	English units — lb/million lbs of lead in trucked batteries	
Copper	0.026	0.014
Lead	0.005	0.002
Iron	0.016	0.008

**Table 61**  
**Laundry**  
**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**

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	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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 64**  
**Open Formation — Wet**  
**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	0.067	0.032
Lead	0.014	0.006
Iron	0.063	0.032
Oil and grease	0.53	0.53
TSS	0.80	0.64
pH	(1)	(1)

<sup>1</sup> 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 units — 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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 66**  
**Battery Wash with Detergent**  
**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	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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 67**  
**Direct Chill Lead Casting**  
**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	0.000256	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)

<sup>1</sup> 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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 69**  
**Truck Wash**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of lead in trucked batteries	
	English units — lb/million lbs of lead in trucked batteries	
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 70**  
**Laundry**  
**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	0.14	0.07
Lead	0.03	0.01
Iron	0.13	0.07
Oil and grease	1.09	1.09
TSS	1.64	1.31
pH	(1)	(1)

<sup>1</sup> 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
pH	(1)	(1)

<sup>1</sup> 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	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of lead used	
	English units — lb/million lbs of lead used	
Copper	0.100	0.053
Lead	0.022	0.010

**Table 74  
Plate Soak  
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	0.039	0.021
Lead	0.008	0.004

**Table 75  
Battery Wash with Detergent  
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	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
	Metric units — mg/kg of lead used	
	English units — lb/million lbs of lead used	
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
	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

**Table 78  
Truck Wash  
PSES**

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

**Table 79  
Laundry  
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	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
	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

(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 (FD) 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 — lb/million lbs of lead used	
Copper	2.15	1.02
Lead	0.47	0.21

**Table 82  
Open Formation — Wet  
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	0.067	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 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	0.000256	0.000122
Lead	0.000056	0.000026

**Table 86  
Mold Release Formulation  
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	0.007	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
	Metric units — mg/kg of lead in trucked batteries	
	English units — lb/million lbs of lead in trucked 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 — lb/million lbs of lead used	
Copper	0.14	0.07
Lead	0.03	0.01

**Table 89  
Miscellaneous Wastewater Streams  
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 — 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
Oil and grease	0.66	0.66
TSS	0.99	0.79
pH	(1)	(1)

<sup>1</sup>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 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.

**NR 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**  
**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	
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 94**  
**Iron Disulfide Cathodes**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR 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
Iron	9.05	4.60
TSS	113.1	90.5
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 95**  
**Miscellaneous Wastewater Streams**  
**NSPS**

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
Iron	0.129	0.066
TSS	1.62	1.30
pH	(1)	(1)

<sup>1</sup> 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 — mg/kg of cells produced		
English units — lb/million lbs of cells produced		
TSS	434.0	207.0
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR 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

**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 — mg/kg of silver processed		
English units — lb/million lbs of silver processed		
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — mg/kg of silver processed		
English units — lb/million lbs of silver processed		
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 102**  
**Cell Testing**  
**NSPS**

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
Iron	63.1	32.1
TSS	789.0	631.2
COD	2,630.0	1,290.0
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 103**  
**Floor and Equipment Wash**  
**NSPS**

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	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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 104**  
**Air Scrubber**  
**NSPS**

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	
TSS	8,467.0	4,030.0
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 AVERAGE
	Metric units — mg/kg of silver processed	
	English units — lb/million lbs of silver processed	
Lead	1,032.36	491.60
Silver	1,007.78	417.86

**Table 106**  
**Silver Chloride Cathodes — Electrolytic**  
**PSES**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver processed	
	English units — lb/million lbs of silver processed	
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 — mg/kg of cells produced	
	English units — lb/million lbs of cells produced	
Lead	22.1	10.5
Silver	21.6	8.9

**Table 108**  
**Floor and Equipment 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	
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:

**Table 109**  
**Silver Chloride Cathodes — Chemically Reduced PSNS**

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

**Table 110**  
**Silver Chloride Cathodes — Electrolytic PSNS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR 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 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	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 POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR 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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 114**  
**Gelled Amalgam Anodes BPT**

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	0.30	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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 115**  
**Zinc Oxide, Formed Anodes BPT**

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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 116**  
**Electrodeposited Anodes**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of zinc deposited	
	English units — lb/million lbs of zinc deposited	
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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — mg/kg of silver applied	
	English units — lb/million lbs of silver applied	
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 118**  
**Silver Oxide Powder, Formed Cathodes**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver applied	
	English units — lb/million lbs of silver applied	
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — lb/million lbs of silver applied	
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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 120**  
**Nickel Impregnated Cathodes**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of nickel applied	
	English units — lb/million lbs of nickel applied	
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 121**  
**Miscellaneous Wastewater Streams**  
**BPT**

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	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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 122**  
**Silver Etch**  
**BPT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver processed	
	English units — lb/million lbs of silver processed	
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 123**  
**Silver Peroxide Production**  
**BPT**

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	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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — lb/million lbs of silver powder produced	
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 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**

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 128  
Electrodeposited Anodes  
BAT**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of zinc deposited		
English units — lb/million lbs of zinc deposited		
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 — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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 — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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 — lb/million lbs of nickel applied		
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**

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	0.57	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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of silver processed		
English units — lb/million lbs of silver processed		
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**

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**

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	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**

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
pH	(1)	(1)

<sup>1</sup> 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	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of zinc deposited	
	English units — lb/million lbs of zinc deposited	
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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 139**  
**Silver Powder Formed Cathodes**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver 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
pH	(1)	(1)

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 140**  
**Silver Oxide Powder Formed Cathodes**  
**NSPS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver applied	
	English units — lb/million lbs of silver applied	
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
pH	(1)	(1)

<sup>1</sup> 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 — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — mg/kg silver processed		
English units — lb/million lbs of silver processed		
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 — mg/kg of nickel applied		
English units — lb/million lbs of nickel applied		
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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 145**  
**Silver Peroxide Production**  
**NSPS**

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	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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 143**  
**Miscellaneous Wastewater Streams**  
**NSPS**

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	0.27	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
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

**Table 146**  
**Silver Powder Production**  
**NSPS**

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
Oil and grease	32.10	32.10
TSS	48.15	38.52
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> 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 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**

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	0.055
Silver	0.23	0.093
Zinc	0.80	0.34
Manganese	0.37	0.16

**Table 148  
Gelled Amalgam 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	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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of zinc deposited		
English units — lb/million lbs of zinc deposited		
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 — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of silver applied		
English units — lb/million lbs of silver applied		
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 ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
Metric units — mg/kg of nickel applied		
English units — lb/million lbs of nickel applied		
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 — lb/million lbs of cells produced	
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 — mg/kg of silver processed	
	English units — lb/million lbs of silver processed	
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 — 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	1.98	0.79
Silver	3.24	1.34
Zinc	11.55	4.83
Manganese	5.38	2.29

**Table 158**  
**Silver Powder Production**  
**PSES**

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	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 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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of zinc deposited	
	English units — lb/million lbs of zinc deposited	
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 POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver 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

**Table 162**  
**Silver Oxide Powder Formed Cathodes**  
**PSNS**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver applied	
	English units — lb/million lbs of silver applied	
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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver applied	
	English units — lb/million lbs of silver applied	
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 — mg/kg of nickel applied	
	English units — lb/million lbs of nickel applied	
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**

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	0.27	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**

POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — mg/kg of silver processed	
	English units — lb/million lbs of silver processed	
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	
	English units — lb/million lbs of silver in silver 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.