Chapter NR 255

BATTERY MANUFACTURING

Subshantan	I — General Provisions	NR 255.33	New source performance standards.
NR 255.01		NR 255.34	Pretreatment standards for existing sources.
NR 255.015	Purpose. Applicability.	NR 255.35	Pretreatment standards for new sources.
NR 255.015 NR 255.02	Applicability. General definitions.	NK 233.55	Pretreatment standards for new sources.
		Subchapter	V — Leclanche Subcategory
NR 255.03	Monitoring and reporting requirements.	NR 255.40	Applicability; description of the Leclanche subcategory.
NR 255.04	Compliance date for PSES.	NR 255.43	New source performance standards.
Subchapter 1	II — Cadmium Subcategory	NR 255.44	Pretreatment standards for existing sources.
NR 255.10	Applicability; description of the cadmium subcategory.	NR 255.45	Pretreatment standards for new sources.
NR 255.11	Effluent limitations representing the degree of effluent reduction at-	Subchanter	VI — Lithium Subcategory
	tainable by the application of the best practicable control technol-	NR 255.50	Applicability; description of the lithium subcategory.
	ogy currently available.	NR 255.53	New source performance standards.
NR 255.12	Effluent limitations representing the degree of effluent reduction at-	NR 255.55	Pretreatment standards for new sources.
	tainable by the application of the best available technology eco-	NR 255.55	retreatment standards for new sources.
	nomically achievable.	Subchapter	VII — Magnesium Subcategory
NR 255.13	New source performance standards.	NR 255.60	Applicability; description of the magnesium subcategory.
NR 255.14	Pretreatment standards for existing sources.	NR 255.63	New source performance standards.
NR 255.15	Pretreatment standards for new sources.	NR 255.64	Pretreatment standards for existing sources.
		NR 255.65	Pretreatment standards for new sources.
	III — Calcium Subcategory	Subchanter	VIII — Zinc Subcategory
NR 255.20	Applicability; description of the calcium subcategory.	NR 255.70	Applicability; description of the zinc subcategory.
NR 255.23	New source performance standards.	NR 255.71	Effluent limitations representing the degree of effluent reduction at-
NR 255.25	Pretreatment standards for new sources.	144 255.71	tainable by the application of the best practicable control technol-
Subchapter	IV — Lead Subcategory		ogy currently available.
NR 255.30	Applicability; description of the lead subcategory.	NR 255.72	Effluent limitations representing the degree of effluent reduction at-
NR 255.31	Effluent limitations representing the degree of effluent reduction at-	NR 255.72	tainable by the application of the best available technology eco-
141 255.51	tainable by the application of the best practicable control technol-		nomically achievable.
	ogy currently available.	NR 255.73	New source performance standards.
NR 255.32	Effluent limitations representing the degree of effluent reduction at-	NR 255.74	Pretreatment standards for existing sources.
Tux 200.02	tainable by the application of the best available technology eco-	NR 255.75	Pretreatment standards for new sources.
	nomically achievable.	NR 255.80	Cross-references.
	nonneany achievaole.	111 233.00	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:

c1d XAncillary operationsY 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.

c2d XBatteryY 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.

c3d XBattery manufacturing operationsY 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.

c4d XDischarge allowanceY 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.

c5d XExisting sourceY means any point source, except a new source as defined in sub. c9d, from which pollutants may be discharged either into the waters of the state or into a POTW.

c6d XLeclanche type batteriesY means zinc anode batteries with acid electrolyte.

c7d XMiscellaneous wastewater streamsY 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.

c8d XNSPSY means new source performance standards.

c9d XNew source, Y as defined for NSPS and PSNS, means

Zinc

TSS

pН

Cobalt

Oil and grease

425.2

62.7

c1d

8,364.0

13,592.0

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.

c10d XPSESY means pretreatment standards for existing sources

c11d XPSNSY means pretreatment standards for new sources

c12d XPlate soakY 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.

c13d XTrucked batteries Y 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 cad**mium 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. c1d 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

	<i>D</i> 1 1	
POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
	Metric units — m	g{kg of cadmium
	English units — l	b{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	c1d	c1d

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

Table 2 **Electrodeposited Anodes** BPT MAXIMUM FOR MAXIMUM FOR POLLUTANT OR POLLUTANT PROPERTY ANY 1 DAY 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

1.017.6

13,940.0

28,577.0

146.4

c1d Within the range of 7.5 to 10.0 at all times.

Table 3 **Impregnated Anodes**

BPT				
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR		
POLLUTANT PROPERTY	ANY 1 DAY	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		
pН	$c^{1}d$	$c^{1}d$		

Within the range of 7.5 to 10.0 at all times.

Table 4 Nickel Electrodeposited Cathodes BPT

	DII	
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	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	$c^{1}d$	c ¹ d

Table 5 Nickel Impregnated Cathodes BPT				
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR		
POLLUTANT PROPERTY	ANY 1 DAY			
	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		
рН	c1d	c1d		

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

Table 6 Miscellaneous Wastewater Streams PDT

	BPT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units — 1	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	c ¹ d	c ¹ d	

¹ 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		
		mg{kg of cadmium		
	English units — lb{million lbs of			
	cadmium powde	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	$c^{1}d$	c ¹ d		

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

Table 8			
Silver Powder Production			
	BPT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY		MONTHLY AVERAGE	
Metric units — mg{kg of silver			
	powder produced	d	
	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	$c^{1}d$	c ¹ d	

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

Table 9 Cadmium Hydroxide Production BPT

BPT				
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR		
POLLUTANT PROPERTY	ANY 1 DAY	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	c ¹ d	$c^{1}d$		
T				

Within the range of 7.5 to 10.0 at all times.

Nickel Hydroxide Production				
BPT				
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR		
POLLUTANT PROPERTY	ANY 1 DAY	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	c1d	c1d		

Table 10

Within the range of 7.5 to 10.0 at all times.

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

-

390

NR 255.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable. c1d 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	MAXIMUM FOR	MAXIMUM FOR		
POLLUTANT PROPERTY		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	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	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	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 PAT

	BAT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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 — mg{kg of cadmium		ng{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 15

Table 16Silver Powder Production

	BAT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{kg of silver
	powder produced	d
	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

	DAT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.13 New source performance standards. c1d The discharge of wastewater pollutants from any new source subject to this subchapter may not exceed the following standards:

Table 19
Electrodeposited Anodes
NSPS

	11010	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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	c ¹ d	c ¹ d

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

Table 20 Impregnated Anodes or Nickel Impregnated Cathodes NSPS

1101 0	
MAXIMUM FOR	MAXIMUM FOR
ANY 1 DAY	MONTHLY AVERAGE
Metric units — mg{kg of cadmium	
or nickel applied	
English units — lb{million lbs of	
cadmium or nickel applied	
40.0	16.0
110.0	74.0
204.0	84.0
28.0	14.0
2,000.0	2,000.0
3,000.0	2,400.0
c ¹ d	c ¹ d
	MAXIMUM FOR ANY 1 DAY Metric units — or nickel applied English units — cadmium or nick 40.0 110.0 204.0 28.0 2,000.0 3,000.0

Table 22		
Miscellaneous Wastewater Streams		
NSPS		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
	Metric units — I	ng{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	$c^{1}d$	c ¹ d

Table 22

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

Table 23 Cadmium Powder Production NSPS

NSFS		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units —	mg{kg of cadmium
	powder produce	d
	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
рН	$c^{1}d$	$c^{1}d$

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

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

Table 21 Nickel Electrodeposited Cathodes

NSPS			
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	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	
pН	c ¹ d	$c^{1}d$	

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

Silver Powder Production NSPS MAXIMUM FOR POLLUTANT OR 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 0.64 0.26 Nickel 1.77 1.19 Silver 0.39 0.93 Zinc 3.27 1.35 Cobalt 0.45 0.22 Oil and grease 32.10 32.10 48.15 38.52 TSS pН $c^{1}d$ $c^{1}d$

Table 24

Table 25 Cadmium Hydroxide Production NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY		
	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	
рН	$c^{1}d$	$c^{1}d$	

PH C Within the range of 7.5 to 10.0 at all times.

Table 26 Nickel Hydroxide Production NSPS

	NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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
pН	$c^{1}d$	c ¹ d
¹ Within the range of 7.5 to 10.0) at all times	

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

c2d 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. c1d 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	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units — 1	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

	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY		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

	PSES		
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 30 Miscellaneous Wastewater Streams

	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

	FSES		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	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	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units —	mg{kg of silver pow-	
der 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY		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

Table 34 Nickel Hydroxide Production

0.03

0.012

	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.15 Pretreatment standards for new sources. c1d 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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	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

	10110	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units —	mg{kg of cadmium
	powder produced	1
	English units —	lb{million lbs of
	cadmium powde	r produced
Cadmium	1.31	0.53
Nickel	3.61	2.43
Zinc	6.70	2.76
Cobalt	0.92	0.46

Cobalt

Table 40			
Silver Powder Production			
PSNS			
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		oduced	
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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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

c2d 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. c1d 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
ВРТ

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	0.86	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	$c^{1}d$	$c^{1}d$

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

Table 44 Open Formation — Dehydrated RPT

	BPI	
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
pH	$c^{1}d$	c ¹ d
1		

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

Table 45 Open Formation — Wet 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	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	c'd	c ¹ d	

TSS

0.072

0.117

c'd

	Table 46 Plate Soak BPT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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	c'd	c'd

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
		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	c ¹ d	$c^{1}d$

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

Table 48 Battery Wash - Water Only BPT

	DP I	
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	1.12	0.59
Lead	0.25	0.12
Iron	0.71	0.36
Oil and grease	11.80	7.08
TSS	24.19	11.51
рН	$c^{1}d$	$c^{1}d$

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

Table 49 **Direct Chill Lead Casting** BPT

	DI 1	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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
pН	c ¹ d	c ¹ d

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

Mold Release Formulation BPT MAXIMUM FOR MONTHLY AVERAGE 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 0.011 0.006 Lead 0.002 0.001 Iron 0.007 0.004 Oil and grease

0.120

0.246

Table 50

pН c'd Within the range of 7.5 to 10.0 at all times.

> Table 51 **Truck Wash** BPT

	BPT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units -	mg{kg of lead in
	trucked batteries	
	English units -	- lb{million lbs of
	lead in trucked be	atteries
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	c ¹ d	$c^{1}d$

^{\top} Within the range of 7.5 to 10.0 at all times.

Table 52 Laundry BPT

	BPT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units —	ng{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	$c^{1}d$	$c^{1}d$

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

Table 53 **Miscellaneous Wastewater Streams BPT**

	DII	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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	$c^{1}d$	c ¹ d

c2d 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 c1d made under s. 13.92 c4d cbd 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. c1d 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
	Metric units — 1	ng{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

	BAI	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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 MAXIMUM FOR POLLUTANT OR 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	t Chill Lead Cas	ting	
POLLUTANT OR	BAT MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY		
	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	
	T-11. 50		
Mold	Table 59 Release Formula	tion	
Iviola .	BAT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
		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	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
POLLUTANT PROPERTY	Metric units -	- mg{kg of lead in	
POLLUTANT PROPERTY	Metric units – trucked batterie	- mg{kg of lead in es	
POLLUTANT PROPERTY	Metric units – trucked batterie English units	— mg{kg of lead in es — lb{million lbs of	
POLLUTANT PROPERTY	Metric units – trucked batterie	— mg{kg of lead in es — lb{million lbs of	
Copper	Metric units – trucked batterie English units	— mg{kg of lead in es — lb{million lbs of	
	Metric units – trucked batterie English units lead in trucked	 mg{kg of lead in mg{kg of lead in lb{million lbs of batteries 	
Copper	Metric units – trucked batterie English units lead in trucked 0.026	- mg{kg of lead in es - lb{million lbs of batteries 0.014	
Copper Lead	Metric units – trucked batterie English units lead in trucked 0.026 0.005	- mg{kg of lead in es - lb{million lbs of batteries 0.014 0.002	
Copper Lead	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016	- mg{kg of lead in es - lb{million lbs of batteries 0.014 0.002	
Copper Lead Iron	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT	mg{kg of lead in es batteries 0.014 0.002 0.008	
Copper Lead Iron POLLUTANT OR	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR	mg{kg of lead in ss batteries 0.014 0.002 0.008	
Copper Lead Iron	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY	 mg{kg of lead in mg{kg of lead in bs lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE	
Copper Lead Iron POLLUTANT OR	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units –	 mg{kg of lead in mg{kg of lead in bs lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used	
Copper Lead Iron POLLUTANT OR	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units	 mg{kg of lead in mg{kg of lead in bs lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used	 mg{kg of lead in mg{kg of lead in b{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used Ib{million lbs of	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21	 mg{kg of lead in mg{kg of lead in bs lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used mg{kg of lead used lb{million lbs of 0.11	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper Lead	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05	 mg{kg of lead in lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used Ib{million lbs of 0.11 0.02	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05 0.13	 mg{kg of lead in mg{kg of lead in bs lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used mg{kg of lead used lb{million lbs of 0.11	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper Lead Iron	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05 0.13 Table 62	 mg{kg of lead in mb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used mg{kg of lead used mb{million lbs of 0.11 0.02 0.07	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper Lead Iron	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05 0.13 Table 62 ous Wastewater	 mg{kg of lead in mb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used mg{kg of lead used mb{million lbs of 0.11 0.02 0.07	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper Lead Iron Miscellane	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05 0.13 Table 62 ous Wastewater BAT	 mg{kg of lead in lb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used lead used lead used lb{million lbs of 0.11 0.02 0.07 Streams	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper Lead Iron Miscellane POLLUTANT OR	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05 0.13 Table 62 ous Wastewater	 mg{kg of lead in mb{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used mg{kg of lead used mb{million lbs of 0.11 0.02 0.07	
Copper Lead Iron POLLUTANT OR POLLUTANT PROPERTY Copper Lead Iron Miscellane	Metric units – trucked batterie English units lead in trucked 0.026 0.005 0.016 Table 61 Laundry BAT MAXIMUM FOR ANY 1 DAY Metric units – English units lead used 0.21 0.05 0.13 Table 62 ous Wastewater BAT MAXIMUM FOR ANY 1 DAY	 mg{kg of lead in mg{kg of lead in b{million lbs of batteries 0.014 0.002 0.008 MAXIMUM FOR MAXIMUM FOR MAXIMUM FOR 0.11 0.02 0.07 Streams MAXIMUM FOR	

Metric units -	 mg{kg of lead used
English units	- lb{million lbs of
lead used	
0.58	0.31
0.13	0.06
0.37	0.19
	English units lead used 0.58 0.13

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.33 New source performance standards. c1d 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{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	
pН	c ¹ d	c ¹ d	

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

Table 64 Open Formation — Wet NSPS		
	Metric units — mg	{kg of lead used
	English units — 1	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	$c^{1}d$	$c^{1}d$

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

	Table 65 Plate Soak NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units -	- mg{kg of lead used
	English units — l	lb{million lbs of lead

	English anto	10 (minion 105 of 10ad
		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	c ¹ d	c ¹ d

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

Table 66 **Battery Wash with Detergent** NSPS

	INSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — r	ng{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
pН	$c^{1}d$	c ¹ d

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

Table 67 Direct Chill Lead Casting NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY		
	Metric units — 1	ng{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	
рН	$c^{1}d$	c ¹ d	

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

Table 68 **Mold Release Formulation** NSPS

	1010	
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	0.0077	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	c1d	c1d

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

Table 69 **Truck Wash**

	NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units -	mg{kg of lead in
	trucked batteries	
	English units -	- lb{million lbs of
	lead in trucked b	atteries
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	$c^{1}d$	$c^{1}d$
¹ Within the range of 7.5 to 10.0) at all times	

Within the range of 7.5 to 10.0 at all times.

Table 70 Laundry NSPS

	NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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	$c^{1}d$	c ¹ d

Table 71 Miscellaneous Wastewater Streams NSPS		
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	0.39	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	c1d	c1d

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

-

c2d 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. c1d 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	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units — r	ng{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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
		ng{kg of lead used
	English units -	- lb{million lbs of
	lead used	
Copper	0.100	0.053
Lead	0.022	0.010
	T 11 54	
	Table 74	
	Plate Soak	
	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
		ng{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		
POLLUTANT OR	PSES MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY		MONTHLY AVERAGE
	Metric units — I	ng{kg of lead used
		- lb{million lbs of
Copper	lead used	0.90
Lead	0.38	0.18
Direct	Table 76 t Chill Lead Casti PSES	ng
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — I	ng{kg of lead used – lb{million lbs of
	lead used	
Copper	0.0004	0.0002
Lead	0.00008	0.00004
	Table 77	
Mold	Release Formulat	ion
iviou .	PSES	1011
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	English units — I	ng{kg of lead used - lb{million lbs of
	lead used	
Copper	0.011	0.006
Lead	0.002	0.001
	T-11.79	
	Table 78 Truck Wash PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY Metric units —	mg{kg of lead in
FOLLUTANT PKUPEKTY	Metric units — trucked batteries	mg{kg of lead in
FOLLUTANT PROPERTY	Metric units — trucked batteries	
TOLLUTANT PROPERTY	Metric units — trucked batteries	- lb{million lbs of
Copper	Metric units — trucked batteries English units —	- lb{million lbs of
	Metric units — trucked batteries English units — lead in trucked b	- lb{million lbs of atteries
Copper	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005	- lb{million lbs of atteries 0.014
Copper	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79	- lb{million lbs of atteries 0.014
Copper	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005	- lb{million lbs of atteries 0.014
Copper Lead POLLUTANT OR	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR
Copper Lead	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY	- lb{million lbs of atteries 0.014 0.002
Copper Lead POLLUTANT OR	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — 1	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE
Copper Lead POLLUTANT OR	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used	 - lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — English units — lead used 0.21	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11
Copper Lead POLLUTANT OR POLLUTANT PROPERTY	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used	 - lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80 cous Wastewater 5	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11 0.02
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11 0.02
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead Miscellane	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80 cous Wastewater S PSES MAXIMUM FOR ANY 1 DAY	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11 0.02 Streams MAXIMUM FOR MONTHLY AVERAGE
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead Miscellane POLLUTANT OR	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80 cous Wastewater S PSES MAXIMUM FOR ANY 1 DAY Metric units — 1	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11 0.02 Streams MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead Miscellane POLLUTANT OR	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80 cous Wastewater S PSES MAXIMUM FOR ANY 1 DAY Metric units — 1 English units —	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11 0.02 Streams MAXIMUM FOR MONTHLY AVERAGE
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead Miscellane POLLUTANT OR POLLUTANT OR POLLUTANT PROPERTY	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80 cous Wastewater S PSES MAXIMUM FOR ANY 1 DAY Metric units — 1 English units — 1 English units — SES	 - lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used - lb{million lbs of 0.11 0.02 Streams MAXIMUM FOR MONTHLY AVERAGE mg{kg of lead used - lb{million lbs of Image: the strength of the strengt of the strength of t
Copper Lead POLLUTANT OR POLLUTANT PROPERTY Copper Lead Miscellane POLLUTANT OR	Metric units — trucked batteries English units — lead in trucked b 0.026 0.005 Table 79 Laundry PSES MAXIMUM FOR ANY 1 DAY Metric units — lead used 0.21 0.05 Table 80 cous Wastewater S PSES MAXIMUM FOR ANY 1 DAY Metric units — 1 English units —	- lb{million lbs of atteries 0.014 0.002 MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used - lb{million lbs of 0.11 0.02 Streams MAXIMUM FOR MONTHLY AVERAGE ng{kg of lead used

c2d 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.

C3d 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 $cF_D d$ 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.35 Pretreatment standards for new sources. c1d 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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 — 1	ng{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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
		ng{kg of lead used
	0	 lb{million lbs of
-	lead used	
Copper	0.026	0.012
Lead	0.005	0.002
	Table 84	
Battery	Wash with Deter	gent
PSNS		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
		ng{kg of lead used
		lb{million lbs of
0	lead used	0.540
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		
WIOIU	PSNS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
		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	
DOLUTANTOD	PSNS MAXIMUM FOR	MAXIMUM FOR
POLLUTANT OR POLLUTANT PROPERTY	ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
		mg{kg of lead in
		trucked batteries
		lb{million lbs of
	lead in trucked b	
Copper	0.006	0.003
Lead	0.001	0.0007
Lead	0.001	0.0007
	Table 88	
	Laundry	
	PSNS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
		mg{kg of lead used
		- lb{million lbs of
	lead used	
Copper	0.14	0.07
Lead	0.03	0.01
	Table 89	
Miscellaneous Wastewater Streams		
1115conun	PSNS	of cums
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
		mg{kg of lead used
	English units -	- lb{million lbs of
	lead used	
Copper	0.39	0.19

c2d 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.

0.085

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

Lead

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

0.039

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. c1d 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

	11010	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	c ¹ d	c ¹ d

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

c2d 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. c1d 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.45 Pretreatment standards for new sources. c1d 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

	PSNS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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

c2d 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. c1d 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	c ¹ d	c ¹ d

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

Table 94 Iron Disulfide Cathodes NSPS

	INDED	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units -	– mg{kg of iron
	disulfide	0.0
	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
pН	c ¹ d	c ¹ d

Table 95		
Miscellaneous Wastewater Streams		
	NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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
pН	c1d	c1d
211	ciu	ciu

Table 05

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

	Table 96 Air Scrubbers NSPS	
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
	cells produced	
TSS	434.0	207.0
pH	c ¹ d	c ¹ d

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

c2d 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. c1d 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		
200	PSNS	5
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	
	English units –	 lb{million lbs of
	lead	
Chromium	23.34	9.46
Lead	17.66	8.20
	Table 98	
Iron	Disulfide Cathod	es
	PSNS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
	Metric units — 1	ng{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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

c2d 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. c1d 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
NCDC

	INDED	
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	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
рН	$c^{1}d$	c ¹ d

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

Table 101
Silver Chloride Cathodes — Electrolytic
NCDC

	NSPS	
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
Iron	174.0	86.5
TSS	2,175.0	1,740.0
COD	7,250.0	3,540.0
pH	$c^{1}d$	$c^{1}d$

	Table 102 Cell Testing NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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
рН	c ¹ d	$c^{1}d$

¹Within 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
pН	$c^{1}d$	c ¹ d

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

Table 104 Air Scrubber

All Scrubber			
NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units -	- mg{kg of cells	
	produced		
	English units -	- lb{million lbs of	
	cells produced		
TSS	8,467.0	4,030.0	
рН	$c^{1}d$	c ¹ d	

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

c2d 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. c1d 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			
Silver Chloride C	PSES	ically Reduced	
POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE	
	Metric units — r	ng{kg of silver	
	processed		
	English units —	lb{million lbs of	
	silver processed	404.60	
Lead	1,032.36	491.60	
Silver	1,007.78	417.86	
	Table 106		
Silver Chlori	de Cathodes — E	lectrolytic	
	PSES		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	Metric units — r	MONTHLY AVERAGE	
	processed	lig (kg of silver	
	English units —	lb(million lbs of	
	silver processed		
Lead	60.9	29.0	
Silver	59.5	29.0	
SIIVEI	39.3	24.7	
	Table 107		
	Cell Testing		
	PSES		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY Metric units — r		
	produced	lig kg of cells	
	1	- lb{million lbs of	
	cells produced		
Lead	22.1	10.5	
Silver	21.6	8.9	
Silver		0.7	
	Table 108		
Floor and Equipment Wash			
DOLLUTINE	PSES		
POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR	MAXIMUM FOR MONTHLY AVERAGE	
I OLLUTANI I KOLEKI I	Metric units — r		
	produced		
	r-saucea		

Lead0.0390.018Silver0.0380.105

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.65 Pretreatment standards for new sources. c1d 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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY		MONTHLY AVERAGE
Metric units — mg{kg of silver		
processed		
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 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 42.1 Silver 17.4 Table 111 **Cell Testing PSNS** MAXIMUM FOR MONTHLY AVERAGE POLLUTANT OR POLLUTANT PROPERTY MAXIMUM FOR ANY 1 DAY 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 MAXIM MAXIMUM FOR MAXIM MAXIM MAXIM MAXIM MAXIM M

POLLUTANT PROPERTY	ANY 1 DAY	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

c2d 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 de-

gree of effluent reduction attainable by the application of the best practicable control technology currently available. c1d 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 — 1	ng{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	$c^{1}d$	c ¹ d

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

Table 114 Gelled Amalgam Anodes BPT			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY		
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	$c^{1}d$	$c^{1}d$	

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

Table 115 Zinc Oxide, Formed Anodes BPT

	DII	
POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
POLLUTANT PROPERTY		
	Metric units —	
	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	c ¹ d	c ¹ d

Table 116 Electrodeposited Anodes BPT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	
	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
рН	$c^{1}d$	$c^{1}d$

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

Table 117 Silver Powder, Formed Cathodes BPT

	BPT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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
pН	$c^{1}d$	c ¹ d

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

Table 118 Silver Oxide Powder, Formed Cathodes BPT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — applied	mg{kg of silver
	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	c1d	c1d

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

Table 119 Silver Peroxide Cathodes BPT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

Table 120 Nickel Impregnated Cathodes BPT

 $c^{1}d$

BPT			
MAXIMUM FOR	MAXIMUM FOR		
ANY 1 DAY	MONTHLY AVERAGE		
Metric units — mg{kg of nickel			
applied			
English units -	- lb{million lbs of		
nickel applied			
721.6	295.2		
410.0	164.0		
3,149.0	2,083.0		
672.4	279.0		
2,394.4	1,000.4		
1,115.2	475.6		
32,800.0	19,680.0		
67,240.0	31,980.0		
c ¹ d	c ¹ d		
	MAXIMUM FOR ANY 1 DAY Metric units — applied English units — nickel applied 721.6 410.0 3,149.0 672.4 2,394.4 1,115.2 32,800.0 67,240.0		

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

Table 121 Miscellaneous Wastewater Streams BPT

	DFI	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	c ¹ d	c ¹ d

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

 $c^{1}d$

	Table 122 Silver Etch BPT	
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	
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	c ¹ d	$c^{1}d$

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

Table 123 Silver Peroxide Production BPT

	DII	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units —	mg{kg of silver in
	silver peroxide p	roduced
	English units —	lb{million lbs of
	silver in silver p	eroxide 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	c ¹ d	$c^{1}d$

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

Table 124		
Silver Powder Production		
	BPT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY		MONTHLY AVERAGE
Metric units — mg{kg of silver		
	powder produced	ł
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	$c^{1}d$	$c^{1}d$

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

c2d 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 c1d made under s. 13.92 c4d cbd 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. c1d 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		

MAXIMUM FOR	MAXIMUM FOR
ANY 1 DAY	MONTHLY AVERAGE
Metric units — mg{kg of zinc	
English units — lb{million lbs of	
zinc	
0.24	0.099
0.14	0.056
0.23	0.093
0.80	0.34
0.37	0.16
	ANY 1 DAY Metric units — r English units — zinc 0.24 0.14 0.23 0.80

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

	DINI		
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	

Table 128 Electrodeposited Anodes

BAT		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — r	ng{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

Nickel

Silver

Zinc

Manganese

Table 129Silver Powder Formed Cathodes		
	BAT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

	DAI	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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 MAXIMUM FOR MONTHLY AVERAGE MAXIMUM FOR ANY 1 DAY POLLUTANT OR POLLUTANT PROPERTY 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

384.0

82.0

292.0

136.0

Table 133 Miscellaneous Wastewater Streams BAT

	DAI	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	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	
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

254.0

34.0

122.0

58.0

Silver Peroxide Production BAT			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY		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 135

Table 136 Silver Powder Production

	BAT	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units —	mg{kg of silver pow-
	der produced	
	English units —	lb{million lbs of
	silver powder pr	oduced
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

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.73 New source performance standards. c1d 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
pН	c ¹ d	c ¹ d

s.

Table 138 Electrodeposited Anodes NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
Metric units — mg{kg of zinc deposited			
	1	 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	c ¹ d	c ¹ d	

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

Table 139 Silver Powder Formed Cathodes NSPS

NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units — 1	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	
рН	$c^{1}d$	$c^{1}d$	

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

Table 140 Silver Oxide Powder Formed Cathodes NSPS

INSES		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	$c^{1}d$	c ¹ d

-

Table 141		
Silver Peroxide Cathodes		
NSPS		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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	c ¹ d	$c^{1}d$

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

Table 142 Nickel Impregnated Cathodes NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY		
	Metric units — 1	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	

c¹d

c¹d

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

pН

Table 143			
Miscellaneous Wastewater Streams			
NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	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	
pН	$c^{1}d$	c ¹ d	

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

	Table 144 Silver Etch NSPS	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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
pН	c ¹ d	c ¹ d

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

Table 145 Silver Peroxide Production

	NSPS		
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units — 1	mg{kg of silver in	
	silver peroxide produced		
English units — lb{million lbs of			
		eroxide 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 Within the range of 7.5 to 10.0	c ¹ d	c ¹ d	

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

Table 146 Silver Powder Production NSPS			
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY		
	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	c ¹ d	c ¹ d	

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

c2d 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. c1d 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	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE	
	Metric units — 1	ng{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 MAXIMUM FOR ANY 1 DAY MAXIMUM FOR MONTHLY AVERAGE POLLUTANT OR POLLUTANT PROPERTY Metric units — mg{kg of zinc English units - lb{million lbs of zinc 3.90 Chromium 9.53 5.42 2.17 Mercury Silver 8.89 3.68 13.22 Zinc 31.64 Manganese 14.74 6.28

Table 150 Electrodeposited Anodes PSFS

	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

	1010	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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 153Silver Peroxide Cathodes

	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

	IDLD	
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	
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
TOLLOTANTTKOTEKTT	Metric units —	mg{kg of cells
	produced	ing (ng of cons
		 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
0	Table 156	
	Silver Etch	
	PSES	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units —	mg{kg of silver
	processed	11 ('11' 11 C
		lb{million lbs of
Chromium	silver processed	1.34
Chromium		
Mercury	1.86	0.74 1.26
Silver	3.05	
Zinc	10.86 5.06	4.54 2.16
Manganese	5.00	2.10
	Table 157	
Silver Peroxide Production		
	PSES	
POLLUTANT OR POLLUTANT PROPERTY	MAXIMUM FOR ANY 1 DAY	MAXIMUM FOR MONTHLY AVERAGE
TOLLO MARTINOI ENTI		mg{kg of silver in
	silver peroxide p	
		lb{million lbs of
		eroxide 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
I GEEG IART I KOLEKT I	Metric units —	
powder produced		
		lb{million lbs of
	silver powder pr	

silver powder produced Chromium 1.41 0.58 Mercury 0.80 0.32 Silver 1.32 0.55 Zinc 4.69 1.96 2.18 0.93 Manganese

c2d 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 c1d made under s. 13.92 c4d cbd 7., Stats., Register April 2013 No. 688.

NR 255.75 Pretreatment standards for new sources. c1d 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 — 1	ng{kg of zinc
		- 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

	1 5145	
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	ng{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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	MONTHLY AVERAGE
	Metric units — 1	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	MAXIMUM FOR	MAXIMUM FOR	
POLLUTANT PROPERTY	ANY 1 DAY	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

	1 51 5	
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	
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	MAXIMUM FOR	MAXIMUM FOR
POLLUTANT PROPERTY	ANY 1 DAY	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

	Shiver Liten			
PSNS				
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			
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 167Silver Peroxide ProductionPSNS				
POLLUTANT OR	MAXIMUM FOR	MAXIMUM FOR		
POLLUTANT PROPERTY	ANY 1 DAY	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

	1 5145		
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		
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	

c2d 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	Corresponding State
Regulations	References
40 CFR Part 401	ch. NR 205
40 CFR 403.6 ced	s. NR 211.12
40 CFR 125.30 to 125.32	s. 283.13 c3d, Stats.
History: Cr. Register, November, 1987, No	o. 383, eff. 12-1-87.