### § 420.127

#### § 420.127 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology (BCT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional technology.

- (a) Galvanizing, terne coating, and other coatings.
- (1) Strip, sheet, and miscellaneous products.

#### SUBPART L

	BCT effluent limitations	
Pollutant or pollutant property	Maximum for any 1 day	Average of daily val- ues for 30 consecu- tive days
	Kg/kkg (pounds per 1,000 lb) of product	
TSS	0.175 0.0751 (1)	0.0751 0.0250 (1)

<sup>&</sup>lt;sup>1</sup> Within the range of 6.0 to 9.0.

- (b) Galvanizing and other coatings.
- (1) Wire products and fasteners.

### SUBPART L

	BCT effluent limitations	
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 con- secutive days
	Kg/kkg (pounds per 1,000 lb) of product	
TSS	0.701	0.300
O&G	0.300	0.100
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 6.0 to 9.0.

(c) Fume scrubbers.

#### SUBPART L

	DOT -#1	
	BCT effluen	t ilmitations
Pollutant or pollutant property	Maximum for any 1 day	Average of daily val- ues for 30 consecu- tive days
	Kilograms per day	
TSS	38.1 16.3 (¹)	16.3 5.45 (¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 6.0 to 9.0.

The above limitations shall be applicable to each fume scrubber associated with any of the coating operations specified above.

#### PART 421—NONFERROUS METALS MANUFACTURING **POINT** SOURCE CATEGORY

### GENERAL PROVISIONS

Sec.

Applicability. 421 1 421.2 [Reserved]

- 421.3 Monitoring and reporting requirements.
- 421.4 Compliance date for pretreatment standards for existing sources (PSES).
- 421.5 Removal allowances for pretreatment standards.

### Subpart A—Bauxite Refining Subcategory

- 421.10 Applicability; description of the bauxite refining subcategory.
- 421.11 Specialized definitions.
- 421.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.14 [Reserved] 421.15 Standards of performance for new sources.
- 421.16 Pretreatment standards for new sources.

### Subpart B—Primary Aluminum Smelting Subcategory

- 421.20 Applicability: description of the primary aluminum smelting subcategory.
- 421.21 Specialized definitions.
- 421.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best

- practicable control technology currently available.
- 421.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.24 Standards of performance for new sources.
- 421.25 [Reserved]
- 421.26 Pretreatment standards for new sources.
- 421.27 [Reserved]

### Subpart C—Secondary Aluminum Smelting Subcategory

- 421.30 Applicability: Description of the secondary aluminum smelting subcategory.
- 421.31 Specialized definitions.
- 421.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.34 Standards of performance for new sources.
- 421.35 Pretreatment standards for existing sources.
- 421.36 Pretreatment standards for new sources.
- 421.37 [Reserved]

### Subpart D—Primary Copper Smelting Subcategory

- 421.40 Applicability: Description of the primary copper smelting subcategory.
- 421.41 Specialized definitions.
- 421.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.44 Standards of performance for new sources.
- 421.45 [Reserved]
- 421.46 Pretreatment standards for new sources.
- 421.47 [Reserved]

### Subpart E—Primary Electrolytic Copper Refining Subcategory

421.50 Applicability: Description of the primary electrolytic copper refining subcategory.

- 421.51 Specialized definitions.
- 421.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.54 Standards of performance for new sources.
- 421.55 [Reserved]
- 421.56 Pretreatment standards for new sources.
- 421.57 [Reserved]

### Subpart F—Secondary Copper Subcategory

- 421.60 Applicability: Description of the secondary copper subcategory.
- 421.61 Specialized definitions.
- 421.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.64 Standards of performance for new sources.
- 421.65 Pretreatment standards for existing sources.
- 421.66 Pretreatment standards for new sources.
- 421.67 [Reserved]

### Subpart G-Primary Lead Subcategory

- 421.70 Applicability: Description of the primary lead subcategory.
- 421.71 Specialized definitions.
- 421.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.74 Standards of performance for new sources.
- 421.75 Pretreatment standards for existing sources.
- 421.76 Pretreatment standards for new sources.
- 421.77 [Reserved]

#### Pt. 421

#### Subpart H—Primary Zinc Subcategory

- 421.80 Applicability: Description of the primary zinc subcategory.
- 421.81 Specialized definitions.
- 421.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.84 Standards of performance for new sources.
- 421.85 Pretreatment standards for existing sources.
- 421.86 Pretreatment standards for new sources.
- 421.87 [Reserved]

### Subpart I—Metallurgical Acid Plants Subcategory

- 421.90 Applicability: Description of the metallurgical acid plants subcategory.
- 421.91 Specialized definitions.
- 421.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.94 Standards of performance for new sources.
- 421.95 Pretreatment standards for existing sources.
- 421.96 Pretreatment standards for new sources.
- 421.97 [Reserved]

### Subpart J—Primary Tungsten Subcategory

- 421.100 Applicability: Description of the primary tungsten subcategory.
- 421.101 Specialized definitions.
- 421.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.104 Standards of performance for new sources.
- 421.105 Pretreatment standards for existing sources.

- 421.106 Pretreatment standards for new sources.
- 421.107 [Reserved]

### Subpart K—Primary Columbium-Tantalum Subcategory

- 421.110 Applicability: Description of the primary columbium-tantalum subcategory.
- 421.111 Specialized definitions.
- 421.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.114 Standards of performance for new sources
- 421.115 Pretreatment standards for existing sources.
- 421.116 Pretreatment standards for new sources.
- 421.117 [Reserved]

#### Subpart L—Secondary Silver Subcategory

- 421.120 Applicability: Description of the secondary silver subcategory.
- 421.121 Specialized definitions.
- 421.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.124 Standards of performance for new sources.
- 421.125 Pretreatment standards for existing sources.
- 421.126 Pretreatment standards for new sources.
- 421.127 [Reserved]

### Subpart M—Secondary Lead Subcategory

- 421.130 Applicability: Description of the secondary lead subcategory.
- 421.131 Specialized definitions.
- 421.132 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.133 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.134 Standards of performance for new sources.

- 421.135 Pretreatment standards for existing sources.
- 421.136 Pretreatment standards for new sources.
- 421.137 [Reserved]

#### Subpart N—Primary Antimony Subcategory

- 421.140 Applicability: Description of the primary antimony subcategory.
- 421.141 Specialized definitions.
- 421.142 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.143 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.144 Standards of performance for new sources.
- 421.145 [Reserved]
- 421.146 Pretreatment standards for new sources.
- 421.147 [Reserved]

### Subpart O-Primary Beryllium Subcategory

- 421.150 Applicability: Description of the primary beryllium subcategory.
- 421.151 Specialized definitions.
- 421.152 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.153 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.154 Standards of performance for new sources.
- 421.155 [Reserved]
- 421.156 Pretreatment standards for new sources.
- 421.157 [Reserved]

### Subpart P—Primary and Secondary Germanium and Gallium Subcategory

- 421.180 Applicability: Description of the primary and secondary germanium and gallium subcategory.
- 421.181 Specialized definitions.
- 421.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.183 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

421.184 Standards of performance for new sources.

Pt. 421

- 421.185 Pretreatment standards for existing sources.
- 421.186 Pretreatment standards for new sources.
- 421.187 [Reserved]

### Subpart Q—Secondary Indium Subcategory

- 421.190 Applicability: Description of the secondary indium subcategory.
- 421.191 Specialized definitions.
- 421.192—421.193 [Reserved]
- 421.194 Standards of performance for new sources.
- 421.195 Pretreatment standards for existing sources.
- 421.196 Pretreatment standards for new sources.
- 421.197 [Reserved]

### Subpart R—Secondary Mercury Subcategory

- 421.200 Applicability: Description of the secondary mercury subcategory.
- 421.201 Specialized definitions.
- 421.202—421.203 [Reserved]
- 421.204 Standards of performance for new sources.
- 421.205 [Reserved]
- 421.206 Pretreatment standards for new sources.
- 421.207 [Reserved]

### Subpart S—Primary Molybdenum and Rhenium Subcategory

- 421.210 Applicability: Description of the primary molybdenum and rhenium subcategory.
- 421.211 Specialized definitions.
- 421.212 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.213 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.214 Standards of performance for new sources.
- 421.215 [Reserved]
- 421.216 Pretreatment standards for new sources.
- 421.217 [Reserved]

#### Subpart T—Secondary Molybdenum and Vanadium Subcategory

421.220 Applicability: Description of the secondary molybdenum and vanadium subcategory.

#### Pt. 421

- 421.221 Specialized definitions.
- 421.222 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.223 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.224 Standards of performance for new sources.
- 421.225 [Reserved]
- 421.226 Pretreatment standards for new sources.
- 421.227 [Reserved]

### Subpart U—Primary Nickel and Cobalt Subcategory

- 421.230 Applicability: Description of the primary nickel and cobalt subcategory.
- 421.231 Specialized definitions.
- 421.232 Effuent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.233 Effuent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.234 Standards of performance for new sources.
- 421.235 [Reserved]
- 421.236 Pretreatment standards for new sources.
- 421.237 [Reserved]

### Subpart V—Secondary Nickel Subcategory

- 421.240 Applicability: Description of the secondary nickel subcategory.
- 421.241 Specialized definitions.
- 421.242—421.243 [Reserved]
- 421.244 Standards of performance for new sources.
- 421.245 Pretreatment standards for existing sources.
- 421.246 Pretreatment standards for new sources.
- 421.247 [Reserved]

### Subpart W—Primary Precious Metals and Mercury Subcategory

- 421.250 Applicability: Description of the primary precious metals and mercury subcategory.
- 421.251 Specialized definitions.
- 421.252 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

- 421.253 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.254 Standards of performance for new sources.
- 421.255 [Reserved]
- 421.256 Pretreatment standards for new sources.
- 421.257 [Reserved]

### Subpart X—Secondary Precious Metals Subcategory

- 421.260 Applicability: Description of the secondary precious metals subcategory.
- 421.261 Specialized definitions.
- 421.262 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.263 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.264 Standards of performance for new sources.
- 421.265 Pretreatment standards for existing sources.
- 421.266 Pretreatment standards for new sources.
- 421.267 [Reserved]

### Subpart Y—Primary Rare Earth Metals Subcategory

- 421.270 Applicability: Description of the primary rare earth metals subcategory.
- 421.271 Specialized definitions.
- 421.272 [Reserved]
- 421.273 [Reserved]
- 421.274 Standards of performance for new sources.
- 421.275 Pretreatment standards for existing sources.
- 421.276 Pretreatment standards for new sources.
- 421.277 [Reserved]

### Subpart Z—Secondary Tantalum Subcategory

- 421.280 Applicability: Description of the secondary tantalum subcategory.
- 421.281 Specialized definitions.
- 421.282 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.283 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best

- available technology economically achievable.
- 421.284 Standards of performance for new sources.
- 421.285 [Reserved]
- 421.286 Pretreatment standards for new sources.
- 421.287 [Reserved]

### Subpart AA—Secondary Tin Subcategory

- 421.290 Applicability: Description of the secondary tin subcategory
- 421.291 Specialized definitions.
- 421.292 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.293 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.294 Standards of performance for new sources.
- 421.295 Pretreatment standards for existing sources.
- 421.296 Pretreatment standards for new sources.
- 421.297 [Reserved]

### Subpart AB—Primary and Secondary Titanium Subcategory

- 421.300 Applicability: Description of the primary and secondary titanium subcategory.
- 421.301 Specialized definitions.
- 421.302 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.303 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.304 Standards of performance for new sources.
- 421.305 Pretreatment standards for existing sources.
- 421.306 Pretreatment standards for new sources.
- 421.307 [Reserved]

### Subpart AC—Secondary Tungsten and Cobalt Subcategory

- 421.310 Applicability: Description of the secondary tungsten and cobalt subcategory.421.311 Specialized definitions.
- 421.312 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best

- practicable control technology currently available.
- 421.313 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.314 Standards of performance for new sources.
- 421.315 Pretreatment standards for existing sources.
- 421.316 Pretreatment standards for new sources.
- 421.317 [Reserved]

### Subpart AD—Secondary Uranium Subcategory

- 421.320 Applicability: Description of the secondary uranium subcategory.
- 421.321 Specialized definitions.
- 421.322 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.323 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.324 Standards of performance for new sources.
- 421.325 [Reserved]
- 421.326 Pretreatment standards for new sources.
- 421.327 [Reserved]

### Subpart AE—Primary Zirconium and Hafnium Subcategory

- 421.330 Applicability: Description of the primary zirconium and hafnium subcategory.
- 421.331 Specialized definitions.
- 421.332 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 421.333 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 421.334 Standards of performance for new sources.
- 421.335 [Reserved]
- 421.336 Pretreatment standards for new sources.
- 421.337 [Reserved]

AUTHORITY: Secs. 301, 304 (b), (c), (e), and (g), 306 (b) and (c), 307 (b) and (c), 308 and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977) and the Water Quality Act of 1987 (the

"Act"); 33 U.S.C. 1311, 1314 (b), (c), (e), and (g), 1316 (b) and (c), 1317 (b) and (c), 1318 and 1361; 86 Stat. 816, Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217; 101 Stat. 7, Pub. L. 100-4.

SOURCE: 49 FR 8790, Mar. 8, 1984, unless otherwise noted.

#### GENERAL PROVISIONS

### §421.1 Applicability.

This part applies to facilities producing primary metals from ore concentrates and recovering secondary metals from recycle wastes which discharge or may discharge pollutants to waters of the United States or which introduce or may introduce pollutants into a publicly owned treatment works. The applicability of this part to alloying or casting of nonferrous metals is limited to alloying or casting of hot metal directly from the nonferrous metals manufacturing process without Remelting cooling. followed by alloying or cooling is included in the aluminum forming, nonferrous metals forming, or metal molding and casting point source categories.

### §421.2 [Reserved]

### § 421.3 Monitoring and reporting requirements.

The following special monitoring requirements apply to all facilities controlled by this regulation:

- (a) The *monthly average* regulatory values shall be the basis for the monthly average discharge in direct discharge permits and for pretreatment standards. Compliance with the monthly discharge limit is required regardless of the number of samples analyzed and averaged.
- (b) Periodic analysis for cyanide are not required for a facility in the primary beryllium subcategory (subpart O of this part) when both of the following conditions are met:
- (1) The first wastewater sample taken in each calandar year has been analyzed and found to contain less than 0.07 mg/1 cyanide.
- (2) The owner or operator of the primary beryllium manufacturing facility certifies in writing to the POTW authority or permit issuing authority that cyanide is neither generated nor

used in the beryllium manufacturing process employed at that facility.

[49 FR 8790, Mar. 8, 1984, as amended at 55 FR 31697, Aug. 3, 1990]

## § 421.4 Compliance date for pretreatment standards for existing sources (PSES).

The PSES compliance deadline in subparts A through M is March 8, 1987. The PSES compliance deadline for plants in subparts N through AE is September 20, 1988.

[50 FR 52776, Dec. 26, 1985]

### § 421.5 Removal allowances for pretreatment standards.

Removal allowances pursuant to 40 CFR 403.7(a) may be granted for the toxic metals limited in 40 CFR part 421 when used as indicator pollutants.

### Subpart A—Bauxite Refining Subcategory

### §421.10 Applicability; description of the bauxite refining subcategory.

The provisions of this subpart are applicable to discharges resulting from the refining of bauxite to alumina by the Bayer process or by the combination process.

[39 FR 12825, Apr. 8, 1974]

### §421.11 Specialized definitions.

For the purpose of this subpart:

- (a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.
- (b) The term *bauxite* shall mean ore containing alumina monohydrate or alumina trihydrate which serves as the principal raw material for the production of alumina by the Bayer process or by the combination process.
- (c) The term *product* shall mean alumina.
- (d) For all impoundments the term within the impoundment for purposes of calculating the volume of process wastewater which may be discharged, shall mean the surface area within the impoundment at the maximum capacity plus the area of the inside and outside slopes of the impoundment dam

and the surface area between the outside edge of the impoundment dam and seepage ditches upon which rain falls and is returned to the impoundment. For the purpose of such calculations, the surface area allowance for external appurtenances to the impoundment shall not be more than 30 percent of the water surface area within the impoundment dam at maximum capacity.

(e) The term *pond water surface area* for the purpose of calculating the volume of waste water shall mean the area within the impoundment for rainfall and the actual water surface area for evaporation.

[39 FR 12825, Apr. 8, 1974, as amended at 40 FR 48348, Oct. 15, 1975]

## § 421.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart, shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

(a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: There shall be no discharge of process waste water pollutants to navigable waters.

(b) During any calendar month there may be discharged from the overflow of a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

[39 FR 12825, Apr. 8, 1974, as amended at 50 FR 38342, Sept. 20, 1985]

# §421.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

- (a) Subject to the provisions of paragraph (b) of this section, the following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.
- (b) During any calendar month there may be discharged from the overflow of a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

[39 FR 12825, Apr. 8, 1974, as amended at 50 FR 38342, Sept. 20, 1985]

### §421.14 [Reserved]

### § 421.15 Standards of performance for new sources.

(a) Subject to the provisions of paragraph (b) of this section, the following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

(b) During any calendar month there may be discharged from the overflow of a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation within the impoundment for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).

[39 FR 12825, Apr. 8, 1974]

### § 421.16 Pretreatment standards for new sources.

Any new sources subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403.

[50 FR 38342, Sept. 20, 1985]

### Subpart B—Primary Aluminum Smelting Subcategory

## § 421.20 Applicability: description of the primary aluminum smelting subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of aluminum from alumina in the Hall-Heroult process.

#### §421.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter, shall apply to this subpart.

(b) The term *product* shall mean hot aluminum metal.

(c) If a permittee chooses to analyze for benzo(a)pyrene using any EPA-approved method, any "non-detected" measurements shall be considered zeroes for the purpose of determining compliance with this regulation.

[49 FR 8792, Mar. 8, 1984, as amended at 52 FR 25556, July 7, 1987]

# §421.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available (BPT):

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units—kg/kkg of product	
	English units—lbs/ thousand lbs of product	
Fluoride	2.0 3.0 (¹)	1.0 1.5 (¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 6 to 9 at all times.

[49 FR 8792, Mar. 8, 1984; 49 FR 29794, July 24, 1984]

## § 421.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart B—Anode and Cathode Paste Plant Wet Air Pollution Control

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million paste pro-
Benzo(a)pyrene	0.005 .263 .075 .831 8.092	0.002 .117 .050 .369 3.591

(b) Supart (B)—Anode Contact Cooling and Briquette Quenching.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes cast	
Benzo(a)pyrene	0.007 .403 .115 1.277 12.440	0.003 .180 .077 .566 5.518

(c) Subpart (B)—Anode Bake Plant Wet Air Pollution Control (Closed Top Ring Furnace).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes baked	
Benzo(a)pyrene	0.146 8.346 2.378 26.420	0.067 3.719 1.600 11.720
Fluoride	257.300	114.200

(d) Subpart B—Anode Bake Plant Wet Air Pollution Control (Open Top Ring Furnace With Spray Tower Only).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes baked	
Benzo(a)pyrene	0.002 .097 .028 .306	0.001 .043 .019

### BAT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Fluoride	2.975	1.320

(e) Subpart B—Anode Bake Plant Wet Air Pollution Control (Open Top Ring Furnace With Wet Electrostatic Precipitator and Spray Tower).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes baked	
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride	0.025 1.409 .402 4.461 43.440	0.011 .628 .270 1.979 19.270

(f) Subpart B—Anode Bake Plant Wet Air Pollution Control (Tunnel Kiln).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes baked	
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride	0.038 2.197 .626 6.953 67.710	0.018 .979 .421 3.084 30.050

(g) Subpart B—Cathode Reprocessing (Operated With Dry Potline Scrubbing and Not Commingled With Other Process or Nonprocess Waters).

### **BAT EFFLUENT LIMITATIONS**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of cryolite re- covered	
1.181	0.547
420,400	189.200
157.600	70.060
80.570	35.030
273.200	122.600
29,430.000	13,310.000
	mg/kg (pound pounds) of covered  1.181 420.400 157.600 80.570 273.200

(h) Subpart B—Cathode Reprocessing (Operated With Dry Potline Scrubbing

and Commingled With Other Process or Nonprocess Waters).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cryolite re- covered	
Benzo(a)pyrene Antimony Cyanide Nickel Aluminum Fluoride	1.181 67.610 157.600 19.270 214.000 2,084.000	0.547 30.120 70.060 12.960 94.930 924.800

(i) Subpart B—Cathode Reprocessing (Operated With Wet Potline Scrubbing).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of covered	per million cryolite re-
Benzo(a)pyrene Antimony Cyanide Nickel Aluminum Fluoride	.000 .000 .000 .000 .000	.000 .000 .000 .000

(j) Subpart B—Potline Wet Air Pollution Control (Operated Without Cathode Reprocessing).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride	0.028 1.618 .461 5.120 49.860	0.013 .721 .310 2.271 22.130

(k) Subpart B—Potline Wet Air Pollution Control (Operated With Cathode Reprocessing and Not Commingled With Other Process or Nonprocess Waters).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	0.028	0.013
Antimony	10.060	4.525
Cyanide	3.771	1.676
Nickel	1.928	.838
Aluminum	6.537	2.933
Fluoride	703.900	318.500

(l) Potline Wet Air Pollution Control Cooperated With Cathode Reprocessing and Commingled With Other Process or Nonprocess Wastewaters).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	0.028	0.013
Antimony	1.618	.721
Cyanide	3.771	1.676
Nickel	0.461	.310
Aluminum	5.120	2.271
Fluoride	49.860	22.130

(m) Subpart B—Potroom Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	0.056 3.204 .913 10.140 98.770	0.026 1.428 .614 4.499 43.830

(n) Subpart B—Potline  $SO_2$  Emissions Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	0.045 2.588 .738 8.194	0.021 1.153 .496 3.634
Fluoride	79.790	35.400

### (o) Subpart B-Degassing Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride	(1) 5.036 1.435 15.940 155.300	(1) 2.244 .965 7.071 68.880

<sup>&</sup>lt;sup>1</sup>There shall be no discharge allowance for this pollutant.

### (p) Subpart B-Pot Repair and Pot Soaking.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	.000 .000 .000 .000	.000 .000 .000

### (q) Subpart B-Direct Chill Casting Contact Cooling.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum product from direct chill casting	
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride	(1) 2.565 .731 8.120 79.080	(1) 1.143 .492 3.602 35.090

<sup>&</sup>lt;sup>1</sup>There shall be no discharge allowance for this pollutant.

### (r) Subpart B-Continuous Rod Casting Contact Cooling.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum product from rod cast- ing	
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride	(1) .201 .057 .636 6.188	(1) .089 .038 .282 2.746

<sup>&</sup>lt;sup>1</sup>There shall be no discharge allowance for this pollutant.

### (s) Subpart B-Stationary Casting or Shot Casting Contact Cooling.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum product from stationary casting or shot casting	
Benzo(a)pyrene	.000 .000 .000 .000	.000 .000 .000

[49 FR 8792, Mar. 8, 1984, as amended at 52 FR 25556, July 7, 1987]

#### §421.24 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:
(a) Subpart B—Anode and Cathode

Paste Plant Wet Air.

### POLLUTION CONTROL—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	d per million paste pro-
Benzo(a)pyrene	.000	
Antimony	.000	.000
Nickel	.000	.000
Aluminum	.000	.000
Fluoride	.000	.000
Oil and grease	.000	.000
Total suspended solids	.000	.000
pH	(1)	( <sup>1</sup> )

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (b) Subpart B—Anode Contact Cooling and Briquette Quenching.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of a	
Benzo(a)pyrene	0.007 .403 .115 1.277 12.440 2.090 3.135	0.003 .180 .077 .566 5.518 2.090 2.508

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (c) Subpart B—Anode Bake Plant Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of ar	
Benzo(a)pyrene	.000	
Antimony	.000	.000
Nickel	.000	.000
Aluminum	.000	.000
Fluoride	.000	.000
Oil and grease	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(d) Subpart B—Cathode Reprocessing (Operated With Dry Potline Scrubbing and Not Commingled With Other Process or Nonprocess Waters).

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of covered	d per million cryolite re-
Benzo(a)pyrene Antimony Cyanide Nickel Aluminum Fluoride Oil and grease Total suspended solids pH	1.181 420.400 157.600 80.570 273.200 29,430.000 350.300 2,172.000 (1)	0.547 189.200 70.060 35.030 122.600 13,310.000 350.300 945.800 (1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(e) Subpart B—Cathode Reprocessing (Operated With Dry Potline Scrubbing and Commingled With Other Process or Nonprocess Waters).

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of covered	d per million cryolite re-
Benzo(a)pyrene Antimony Cyanide Nickel Aluminum Fluoride Oil and grease Total suspended solids pH	1.181 67.610 157.600 19.270 214.000 2,084.000 350.300 2,172.000	0.547 30.120 70.060 12.960 94.930 924.800 350.300 945.800

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (f) Subpart B—Potline Wet Air Pollution Control.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		f aluminum rom electro-
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride Oil and grease Total suspended solids pH	.000 .000 .000 .000 .000 .000 .000	

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(g) Subpart B—Potroom Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	.000	
Antimony	.000	.000
Nickel	.000	.000
Aluminum	.000	.000
Fluoride	.000	.000
Oil and grease	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (h) Subpart B—Potline SO<sub>2</sub> Emissions Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		d per million uminum pro- n electrolytic
Benzo(a)pyrene Antimony	0.045 2.588	0.021 1.153
Nickel	.738	.496
Aluminum	8.194	3.634
Fluoride	79.790	35.400
Oil and grease	13.410	13.410
Total suspended solids	20.120	16.090
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (i) Subpart B-Degassing Wet Air Pollution Control.

### **NSPS**

Maximum for any 1 day	Maximum for monthly average
	f aluminum rom electro-
.000 .000 .000 .000 .000 .000	
	for any 1 day  mg/kg (pounds) o produced f lytic reducti  .000 .000 .000 .000 .000 .000

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (j) Subpart B-Pot Repair and Pot Soaking.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	.000	
Antimony	.000	.000
Nickel	.000	.000
Aluminum	.000	.000
Fluoride	.000	.000
Oil and grease	.000	.000
Total suspended solids	.000	.000
pH	( <sup>1</sup> )	( <sup>1</sup> )

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (k) Subpart B-Direct Chill Casting Contact Cooling.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		d per million f aluminum m direct chill
Benzo(a)pyrene Antimony Nickel Aluminum Fluoride Oil and grease Total suspended solids pH	(1) 2.565 .731 8.120 79.080 13.290 19.940 (2)	(1) 1.143 .492 3.602 35.090 13.290 15.950 (2)

<sup>&</sup>lt;sup>1</sup>There shall be no discharge allowance for this pollutant.

<sup>2</sup>The pH shall be maintained within the range of 7.0 to 10.0 at all times except for those situations when this waste is discharged separately and without commingling with any other waste-water in which case the pH shall be within the range of 6.0 to 10.0 at all times.

### (l) Subpart B-Continuous Rod Casting Contact Cooling.

### **NSPS**

Maximum for any 1	Maximum
day	for monthly average
	I per million f aluminum m rod cast-
(1) .201 .057 .636 6.188 1.040 1.560	(1) .089 .038 .282 2.746 1.040 1.248
r	mg/kg (pounds) o product from ing (1) .201 .057 .636 6.188 1.040

 $<sup>^{1}\</sup>mbox{There}$  shall be no discharge allowance for this pollutant.  $^{2}\mbox{Within}$  the range of 7.0 to 10.0 at all times.

(m) Subpart B—Stationary Casting or Shot Casting Contact Cooling.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum product from stationary casting or shot casting	
B(-)	200	
Benzo(a)pyrene	.000	
Antimony	.000	.000
Nickel	.000	.000
Aluminum	.000	.000
Fluoride	.000	.000
Oil and grease	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

[49 FR 8792, Mar. 8, 1984; 49 FR 26739, June 29, 1984, as amended at 52 FR 25558, July 7, 1987]

#### §421.25 [Reserved]

### §421.26 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary aluminum process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart B—Anode and Cathode Paste Plant Wet Air Pollution Control.

### PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of paste pro- duced	
Benzo(a)pyrene	.000 .000 .000	.000

(b) Subpart B—Anode Contact Cooling and Briquette Quenching.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes cast	
Benzo(a)pyrene	0.007 .115 12.440	0.003 .077 5.518

(c) Subpart B—Anode Bake Plant Wet Air Pollution Control.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of anodes baked	
Benzo(a)pyrene	.000 .000 .000	.000

(d) Subpart B—Cathode Reprocessing (Operated With Dry Potline Scrubbing and Not Commingled With Other Process or Nonprocess Waters).

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cryolite re- covered	
Benzo(a)pyrene	1.181 157.600 80.570 29,430.000	0.547 70.060 35.030 13,310.000

(e) Subpart B—Cathode Reprocessing (Operated With Dry Potline Scrubbing and Commingled With Other Process or Nonprocess Waters).

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cryolite re- covered	
Benzo(a)pyrene	1.181 157.600 19.270 2,084.000	0.547 70.060 12.960 924.800

(f) Subpart B—Potline Wet Air Pollution Control.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene Nickel Fluoride	.000 .000 .000	.000

### (g) Subpart B—Potroom Wet Air Pollution Control.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	.000 .000 .000	.000

### (h) Subpart B—Potline $SO_2$ Emissions Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene Nickel Fluoride	0.045 .738 79.790	0.021 .496 35.400

### (i) Subpart B—Degassing Wet Air Pollution Control.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene	.000 .000 .000	.000

### (j) Subpart B—Pot Repair and Pot Soaking.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum produced from electro- lytic reduction	
Benzo(a)pyrene Nickel Fluoride	.000 .000 .000	.000

### (k) Subpart B—Direct Chill Casting Contact Cooling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum product from direct chill casting	
Benzo(a)pyrene	(1) .731 79.080	(¹) .492 35.090

<sup>&</sup>lt;sup>1</sup>There shall be no discharge allowance for this pollutant.

### (l) Subpart B—Continuous Rod Casting Contact Cooling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum product from rod cast- ing	
Benzo(a)pyrene Nickel Fluoride	(¹) .057 6.188	(1) .038 2.746

<sup>&</sup>lt;sup>1</sup>There shall be no discharge allowance for this pollutant.

### (m) Subpart B—Stationary Casting or Shot Casting Contact Cooling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of aluminum product from stationary casting or shot casting	
Benzo(a)pyrene	.000 .000	.000

[49 FR 8792, Mar. 8, 1984; 49 FR 26739, June 29, 1984, as amended at 52 FR 25559, July 7, 1987]

#### § 421.27 [Reserved]

### Subpart C—Secondary Aluminum Smelting Subcategory

SOURCE: 49 FR 8796, Mar. 8, 1984, unless otherwise noted.

## §421.30 Applicability: Description of the secondary aluminum smelting subcategory.

The provisions of this subpart are applicable to discharges resulting from the recovery, processing, and remelting of aluminum scrap to produce metallic aluminum alloys.

### §421.31 Specialized definitions.

For the purpose of this subpart:

- (a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this chapter shall apply to this subpart.
- (b) The term *product* shall mean hot aluminum metal.
- (c) *At-the-source* means at or before the commingling of delacquering scrubber liquor blowdown with other process or nonprocess wastewaters.

# § 421.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a point source subject to the provisions of this subpart and which uses water for metal cooling, after application of the best practicable control technology currently available: There shall be no discharge of process wastewater pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollut-

ants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart and which uses aluminum fluoride in its magnesium removal process ("demagging process"), after application of the best practicable control technology currently available: There shall be no discharge of process wastewater pollutants to navigable waters.

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties controlled by this section, which may be discharged by a point source subject to the provisions of this subpart and which uses chlorine in its magnesium removal process, after application of the best practicable control technology currently available:

#### **EFFLUENT LIMITATIONS**

Effluent characteristic	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg magnesium re- moved)
TSS	175 6.5
pH	(1)

<sup>1</sup> Within the range of 7.5 to 9.0.

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart and which processes residues by wet methods, after application of the best practical control technology currently available:

#### **EFFLUENT LIMITATIONS**

Effluent characteristic	Average of daily values for 30 consecutive days shall not exceed—	
	Metric units (kilograms per 1,000 kg of prod- uct)	
TSS	1.5	
Fluoride	0.4	
Ammonia (as N)	0.01	
Aluminum	1.0	
Copper	0.003	

### **EFFLUENT LIMITATIONS—Continued**

Effluent characteristic	Average of daily values for 30 consecutive days shall not exceed—	
COD	1.0 (¹)	

<sup>&</sup>lt;sup>1</sup> Within the range of 7.5 to 9.0.

# §421.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart C—Scrap Drying Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound's per mil- lion pounds) of alu- minum scrap dried	
Lead	.000	.000
Zinc	.000	.000
Aluminum	.000	.000
Ammonia (as N)	.000	.000

### (b) Subpart C—Scrap Screening and Milling.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound's per mil- lion pounds) of alu- minum scrap screened and milled	
Lead Zinc	.000 .000 .000	.000 .000 .000

(c) Subpart C—Dross Washing.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound lion pound washed	d's per mil- s) of dross
Lead Zinc Aluminum Ammonia (as N)	3.043 11.090 66.410 1,449.000	1.413 4.565 29.450 636.900

### (d) Subpart C—Demagging Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum demagged	
LeadZincAluminumAmmonia (as N)	0.216 0.786 4.711 102.800	0.100 0.324 2.090 45.180

### (e) Subpart C—Delacquering Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound's per mil- lion pounds) of alu- minum delacquered	
Lead	0.093	0.043
Zinc	0.340	0.140
Aluminum	2.035	0.903
Ammonia (as N)	44.389	19.514
Total phenolics (4-AAP meth-		
od) 1	0.004	

<sup>&</sup>lt;sup>1</sup> At the source.

### $\begin{array}{ll} \hbox{(f) Subpart $C$--Direct Chill Casting}\\ \hbox{Contact Cooling}. \end{array}$

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of all	
Lead Zinc	.372 1.356 8.120 177.200	.173 .558 3.602 77.880

(g) Subpart C—Ingot Conveyor Casting Contact Cooling (When Chlorine

Demagging Wet Air Pollution Control is Not Practiced On-Site).

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum cast	
LeadZincAluminumAmmonia (as N)	0.019 0.068 0.409 8.931	0.009 0.028 0.182 3.926

(h) Subpart C—Ingot Conveyor Casting Contact Cooling (When Chloride Demagging Wet Air Pollution Control is Practiced On Site).

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000	.000
Zinc	.000	.000
Aluminum	.000	.000
Ammonia (as N)	.000	.000

### (i) Subpart C—Stationary Casting Contact Cooling.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000 .000 .000	.000 .000 .000

### (j) Subpart C—Shot Casting Contact Cooling.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000 .000 .000	.000 .000 .000

[49 FR 8796, Mar. 8, 1984; 49 FR 26739, June 29, 1984, as amended at 49 FR 29794, July 24, 1984; 52 FR 25559, July 7, 1987]

### § 421.34 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Subpart C—Scrap Drying Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average.
	mg/kg (pounds per million pounds) of aluminum scrap dried	
Lead	.000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000 .000

<sup>&</sup>lt;sup>1</sup>Within the range of 7.0 to 10.0 at all times

### (b) Subpart C—Scrap Screening and Milling.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminun scrap screened and milled	
Lead	.000	.000
Zinc	.000	.000
Aluminum	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
Oil and grease	.000	.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (c) Subpart C—Dross Washing.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of dross washed	
Lead	.000	.000
Zinc	.000	.000
Aluminum	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
Oil and grease	.000	.000

### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (d) Subpart C—Demagging Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum demagged	
Lead	0.216 0.786 4.711 102.800 11.570 7.710 (¹)	0.100 0.324 2.090 45.180 9.252 7.710 (¹)

<sup>&</sup>lt;sup>1</sup>Within the range of 7.0 to 10.0 at all times.

### (e) Subpart C—Delacquering Wet Air Pollution Control.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o delacquered	f aluminum
Lead	0.093 0.340 2.035 44.389	0.043 0.140 0.903 19.514
od) <sup>1</sup>	0.004 4.995 3.330 (2)	3.996 3.330 (²)

### (f) Subpart C-Direct Chill Casting Contact Cooling.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.372	.173
Zinc	1.356	.558
Aluminum	8.120	3.602
Ammonia (as N)	177.200	77.880
Total suspended solids	19.940	15.950
Oil and grease	13.290	13.290

### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(g) Subpart C-Ingot Conveyor Casting Contact Cooling (When Chlorine Demagging Wet Air Pollution Control is Not Practiced On-Site).

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (lb/million lbs) of aluminum cast		
Lead Zinc Aluminum Ammonia (as N) Total suspended solids Oil and grease pH	0.019 0.068 0.409 8.931 1.005 0.670	0.009 0.028 0.182 3.926 0.804 0.670	

<sup>&</sup>lt;sup>1</sup>Within the range of 7.0 to 10.0 at all times.

(h) Subpart C-Ingot Conveyor Casting Contact Cooling (When Chlorine Demagging Wet Air Pollution Control is Practiced On Site).

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000 .000

<sup>&</sup>lt;sup>1</sup>Within the range of 7.0 to 10.0 at all times.

### (i) Subpart C-Stationary Casting Contact Cooling.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000 .000 .000 .000	.000 .000 .000 .000

<sup>&</sup>lt;sup>1</sup> At the source. <sup>2</sup> Within the range of 7.0 to 10.0 at all times.

NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Oil and greasepH	.000 (¹)	.000 (¹)

<sup>1</sup>Within the range of 7.0 to 10.0 at all times.

### (j) Subpart C—Shot Casting Contact Cooling.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead Zinc	.000 .000 .000	.000 .000 .000
Total suspended solids	.000 .000 .000 (¹)	.000 .000 .000 (1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

[49 FR 8796, Mar. 8, 1984, as amended at 49 FR 29794, July 24, 1984; 52 FR 25559, July 7, 1987]

### § 421.35 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary aluminum process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart C—Scrap Drying Wet Air Pollution Control.

**PSES** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum scrap dried	
Lead Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

(b) Subpart C—Scrap Screening and Milling.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum scrap screened and milled	
LeadZinc	.000 .000 .000	.000 .000 .000

### (c) Subpart C-Dross Washing.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of dross washed	
Lead Zinc Ammonia (as N)	3.043 11.090 1,449.000	1.413 4.565 636.000

### (d) Subpart C—Demagging Wet Air Pollution Control.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum demagged	
Lead Zinc Amomonia (as N)	0.216 0.786 102.800	0.100 0.324 45.180

### (e) Subpart C—Delacquering Wet Air Pollution Control.

### **PSES**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of aluminum delacquered	
0.093	0.043
0.340	0.140
44.389	19.514
0.004	
	mg/kg (pound pounds) o delacquered  0.093 0.340 44.389

<sup>&</sup>lt;sup>1</sup>At the source.

### (f) Subpart C—Direct Chill Casting Contact Cooling.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead Zinc Ammonia (as N)	.372 1.356 177.200	.173 .558 77.800

(g) Subpart C—Ingot Conveyor Casting Contact Cooling (When Chlorine Demagging Wet Air Pollution Control is Not Practiced On-Site).

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum cast	
Lead	0.019	0.009
Zinc	0.068	0.028
Amomonia (as N)	8.931	3.926

(h) Subpart C—Ingot Conveyor Casting Contact Cooling. (When Chlorine Demagging Wet Air Pollution Control is Practiced On Site.)

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead Zinc	.000 .000 .000	.000 .000 .000

(i) Subpart C—Stationary Casting Contact Cooling.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000 .000	.000. 000. 000.

(j) Subpart C—Shot Casting Contact Cooling.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead Zinc	.000 .000	.000 .000 .000

[49 FR 8796, Mar. 8, 1984, as amended at 49 FR 29794, July 24, 1984; 52 FR 25560, July 7, 1987]

### §421.36 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants introduced in secondary aluminum process wastewater into a POTW shall not exceed the following values:

(a) Subpart C—Scrap Drying Wet Air Pollution Control.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum scrap dried	
Lead Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

(b) Subpart C—Scrap Screening and Milling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of aluminum scrap screened and milled	
Lead Zinc Ammonia (as N)	.000 .000 .000	.000. 000. 000.

(c) Subpart C-Dross Washing.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of dross washed	
Lead Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

### (d) Subpart C—Demagging Wet Air Pollution Control.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum demagged	
LeadZincAmomonia (as N)	0.216 0.786 102.800	0.100 0.324 45.180

### (e) Subpart C—Delacquering Wet Air Pollution Control

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum delacquered	
Lead	0.093 0.340 44.389	0.043 0.140 19.514
od) <sup>1</sup>	0.004	

<sup>&</sup>lt;sup>1</sup> At the source.

### (f) Subpart C—Direct Chill Casting Contact Cooling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
LeadZincAmmonia (as N)	.372 1.356 177.200	.173 .558 77.880

<sup>(</sup>g) Subpart C—Ingot Conveyor Casting Control Cooling (When Chlorine Demagging Wet Air Pollution Control is Not Practiced On-Site).

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (lb/million lbs) of aluminum cast	
Lead Zinc Amomonia (as N)	0.019 0.068 8.931	0.009 0.028 3.926

(h) Subpart C—Ingot Conveyor Casting Contact Cooling (When Chlorine Demagging Wet Air Pollution Control Is Practiced on Site).

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

### $\begin{tabular}{ll} (i) & Subpart & C—Stationary & Casting \\ Contact & Cooling. \end{tabular}$

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead Zinc Ammonia (as N)	.000 .000	.000 .000 .000

### (j) Subpart C—Shot Casting Contact Cooling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of aluminum cast	
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000

[49 FR 8796, Mar. 8, 1984, as amended at 49 FR 29794, July 24, 1984; 52 FR 25560, July 7, 1987]

### §421.37 [Reserved]

### Subpart D—Primary Copper Smelting Subcategory

SOURCE: 49 FR 8800, Mar. 8, 1984, unless otherwise noted.

## § 421.40 Applicability: Description of the primary copper smelting subcategory.

The provisions of this subpart apply to process wastewater discharges resulting from the primary smelting of copper from ore or ore concentrates. Primary copper smelting includes, but is not limited to, roasting, converting, leaching if preceded by a pyrometallurgical step, slag granulation and dumping, fire refining, and the casting of products from these operations.

#### §421.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 apply to this subpart.

- (b) In the event that the waste streams covered by this subpart are combined for treatment or discharge with waste streams covered by Subparts E—Primary Electrolytic Copper Refining and/or Subpart I—Metallurgical Acid Plants, the quantity of each pollutant or pollutant property discharged shall not exceed the quantity of each pollutant or pollutant property which could be discharged if each waste stream were discharged separately.
- (c) For all impoundments constructed prior to the effective date of the interim final regulation (40 FR 8513), the term "within the impoundment," when used to calculate the volume of process wastewater which may be discharged, means the water surface area within the impoundment at maximum capacity plus the surface area of the inside and outside slopes of the impoundment dam as well as the surface area between the outside edge of the impoundment dam and any seepage ditch adjacent to the dam upon which rain falls and is returned to the impoundment. For the purpose of such calculations, the surface area allowances set forth above shall not exceed

more than 30 percent of the water surface area within the impoundment dam at maximum capacity.

(d) For all impoundments constructed on or after the effective date of the interim final regulation (the interim regulation was effective February 27, 1975; 40 FR 8513, February 27, 1975), the term "within the impoundment," for purposes of calculating the volume of process wastewater which may be discharged, means the water surface area within the impoundment at maximum capacity.

# § 421.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

- (a) Except as provided in 40 CFR 125.30 through 125.32 and paragraph (b) of this section, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT): There shall be no discharge of process wastewater pollutants to navigable waters.
- (b) A process wastewater impoundment which is designed, constructed, and operated so as to contain the precipitation from the 10-year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located may discharge that volume of process wastewater which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 10-year, 24-hour rainfall event, when such event occurs.

#### § 421.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

- (a) Subject to the provisions of paragraph (b) of this section, there shall be no discharge of process wastewater pollutants into navigable waters.
- (b) A process wastewater impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25-year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located may discharge that volume of process wastewater which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25-year, 24-hour rainfall event, when such event occurs.

[49 FR 8800, Mar. 8, 1984; 49 FR 26739, June 29, 1984]

### §421.44 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards: There shall be discharge of process wastewater pollutants into navigable waters.

### §421.45 [Reserved]

### § 421.46 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary copper smelting process wastewater introduced into a POTW shall not exceed the following values: There shall be no discharge of process wastewater pollutants into a publicly owned treatment works.

### §421.47 [Reserved]

### Subpart E—Primary Electrolytic Copper Refining Subcategory

SOURCE: 49 FR 8801, Mar. 8, 1984, unless otherwise noted.

## § 421.50 Applicability: description of the primary electrolytic copper refining subcategory.

The provisions of this subpart apply to process wastewater discharges resulting from the electrolytic refining of primary copper, including, but not limited to, anode casting performed at refineries which are not located on-site with a smelter, product casting, and by-product recovery.

### §421.51 Specialized definitions.

For the purpose of this subpart:

- (a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 apply to this subpart.
- (b) The term *product* means electrolytically refined copper.

#### § 421.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

### **EFFLUENT LIMITATIONS**

Effluent characteristic	Maximum for any 1 day	Average of Daily values for 30 con- secutive days shall not ex- ceed
	(Metric units, kg/kkg of prod- uct; English units, pounds per 1,000 lb of product)	
Total suspended solids	0.100 0.0017 0.00006 0.0006	0.050 0.0008 0.00003 0.0026

#### **EFFLUENT LIMITATIONS—Continued**

Effluent characteristic	Maximum for any 1 day	Average of Daily values for 30 con- secutive days shall not ex- ceed
ZincpH	0.0012	0.0003
P	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 6.0 to 9.0.

#### § 421.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart E—Casting Contact Cooling.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper cast	
Arsenic Copper Nickel	.692 .638 .274	.309 .304 .184

(b) Subpart E—Anode and Cathode Rinse.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode copper production	
Arsenic	.000 .000 .000	.000 .000 .000

(c) Subpart E-Spent Electrolyte.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of ode produc	copper cath-
Arsenic Copper Nickel	.068 .063 .027	.031 .030 .018

(d) Subpart E—Casting Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duction	ls per million casting pro-
Arsenic Copper Nickel	.000 .000 .000	.000 .000 .000

### (e) Subpart E-By-Product Recovery.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		product re- om electro-
Arsenic Copper Nickel	.000 .000 .000	.000 .000 .000

[49 FR 8801, Mar. 8, 1984; 49 FR 26739, June 29, 1984, as amended at 49 FR 29795, July 24, 1984]

### §421.54 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Subpart E—Casting Contact Cooling.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper cast	
Arsenic	.692 .638	.309 .304

### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Nickel	.274 7.470 (¹)	.184 5.976 (¹)

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

### (b) Subpart E—Anode and Cathode Rinse.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode copper production	
Arsenic	.000	.000
Copper	.000	.000
Nickel	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

### (c) Subpart E-Spent Electrolyte.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper cath- ode production	
Arsenic Copper Nickel Total suspended solids PH	.068 .063 .027 .735 (¹)	.031 .030 .018 .588

<sup>&</sup>lt;sup>1</sup> Within the range 7.5 to 10.0 at all times.

### (d) Subpart E—Casting Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of casting pro- duction	
Arsenic	.000 .000 .000 .000 .000	.000 .000 .000 .000 (1)

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

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of product re- covered from electro- lytic slimes processing	
Arsenic	.000	.000
Nickel	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

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

[49 FR 8801, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984]

### §421.55 [Reserved]

### §421.56 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary electrolytic copper refining process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart E—Casting Contact Cooling.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper cast	
Arsenic Copper Nickel	.692 .638 .274	.309 .304 .184

### (b) Subpart E—Anode and Cathode Rinse.

### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode copper production	
Arsenic	.000	.000
Copper	.000	.000

<sup>(</sup>e) Subpart E—By-Product Recovery. Copp

#### PSNS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Nickel	.000	.000

#### (c) Subpart E-Spent Electrolyte.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode copper production	
Arsenic Copper Nickel	.068 .063 .027	.031 .030 .018

### (d) Subpart E—Casting Wet Air Pollution Control.

### **PSNS**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of casting pro- duction	
.000	.000
.000	.000
.000	.000
	for any 1 day  mg/kg (pound pounds) of duction  .000 .000

### (e) Subpart E-By-Product Recovery.

### **PSNS**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of product re- covered from electro- lytic slimes processing	
.000 .000 .000	.000.
	for any 1 day  mg/kg (pound pounds) of covered fr lytic slimes  .000 .000

[49 FR 8801, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984]

### §421.57 [Reserved]

### Subpart F—Secondary Copper Subcategory

SOURCE: 49 FR 8802, Mar. 8, 1984, unless otherwise noted

### § 421.60 Applicability: Description of the secondary copper subcategory.

The provisions of this subpart are applicable to discharges resulting from the recovery, processing, and remelting of new and used copper scrap and residues to produce copper metal and copper alloys, but are not applicable to continuous rod casting.

#### §421.61 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

(b) For all impoundments con-

structed prior to the effective date of this regulation the term "within the impoundment" when used for purposes of calculating the volume of process wastewater which may be discharged shall mean the water surface area within the impoundment at maximum capacity plus the surface area of the inside and outside slopes of the impoundment dam as well as the surface area between the outside edge of the impoundment dam and any seepage ditch immediately adjacent to the dam upon which rain falls and is returned to the impoundment. For the purpose of such calculations, the surface area allowances set forth above shall not be more than 30 percent of the water surface area within the impoundment dam at maximum capacity.

(c) For all impoundments constructed on or after the effective date of this regulation, the term "within the impoundment" for purposes of calculating the volume of process waster which may be discharged shall mean the water surface area within the impoundment at maximum capacity.

(d) The term *pond water surface area* when used for the purpose of calculating the volume of wastewater which may be discharged shall mean the water surface area of the pond created by the impoundment for storage of process wastewater at normal operating level. This surface shall in no case be less than one-third of the surface area of the maximum amount of water which could be contained by the impoundment. The normal operating level shall be the average level of the pond during the preceding calendar month.

# §421.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

- (a) Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available: Subject to the provisions of paragraphs (b), (c), and (d) of this section, there shall be no discharge of process wastewater pollutants into navigable waters.
- (b) A process wastewater impoundment which is designed, constructed, and operated so as to contain the precipitation from the 10-year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the areas in which such impoundment is located may discharge that volume of process wastewater which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 10-year, 24-hour rainfall event, when such event occurs.
- (c) During any calendar month there may be discharged from a process wastewater impoundment either a volume of process wastewater equal to the difference between the precipitation for the month that falls within the impoundment and either the evaporation from the pond water surface area for that month, or a volume of process wastewater equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation from the pond water surface area as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center), whichever is greater.
- (d) Any process wastewater discharged pursuant to paragraph (c) of this section shall comply with each of the following requirements:

	Effluent characteristic	
Effluent limitations	Maximum for any 1 day	Average of daily values for 30 con- secutive days shall not ex- ceed
	Metric Units (mg/l) English Units (ppm)	
TSS	50 0.5	25 0.25
Zn	10	5
Oil and grease	20	10
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 6.0 to 9.0.

[49 FR 8802, Mar. 8, 1984; 49 FR 26739, June 29, 1984]

### § 421.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

- (a) Subject to the provisions of paragraph (b) of this section, there shall be no discharge of process wastewater pollutants into navigable waters.
- (b) a process wastewater impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25-year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located may discharge that volume of process wastewater which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25-year, 24-hour rainfall event, when such event occurs.

### § 421.64 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards: There shall be no discharge of process wastewater pollutants into navigable waters.

### § 421.65 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary copper process wastewater introduced into a POTW shall not exceed the following values:

- (a) There shall be no discharge of process wastewater pollutants into a publicly owned treatment works subject to the provisions of paragraph (b) of this section.
- (b) A process wastewater impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25-year, 24-hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration, for the area in which such impoundment is located may discharge that volume of process wastewater equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25-year, 24-hour rainfall event, when such event occurs.

### § 421.66 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7 any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary copper process wastewater introduced into a POTW shall not exceed the following values: There shall be no discharge of process wastewater pollutants into a publicly owned treatment works.

#### §421.67 [Reserved]

### Subpart G—Primary Lead Subcategory

SOURCE: 49 FR 8803, Mar. 8, 1984, unless otherwise noted.

### §421.70 Applicability: Description of the primary lead subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of lead at primary lead smelters and refineries.

### §421.71 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

## § 421.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

(a) Subpart G—Sinter Plant Materials Handling Wet Air Pollution Control.

**BPT EFFLUENT LIMITATIONS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of sinter production	
Lead Zinc Total suspended solidspH	594.000 525.000 14,760.000 (1)	270.000 219.600 7,020.000 (¹)

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

### (b) Subpart G—Blast Furnace Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furance lead bullion produced	
Lead Zinc Total suspended solidspH	.000 .000 .000 (1)	.000 .000 .000 (1)

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

### 40 CFR Ch. I (7-1-98 Edition)

### § 421.72

### (c) Subpart G—Blast Furnace Slag Granulation.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furance lead bullion produced	
LeadZinc	6,155.000 5,446.000	2,798.000 2,276.000
Total suspended solids	153,000.000	72,740.000
pH	(1)	(1)

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

### (d) Subpart G—Dross Reverberatory Slag Granulation.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of slag, speiss, or matte granu- lated	
Lead	9,499.000	4,318.000
Zinc	8,405.000	3,512.000
Total suspended solids	236,000.000	112,300.000
pH	(1)	(1)

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

### (e) Subpart G—Dross Reverberatory Furnace Wet Air Pollution Control.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of dross reverberatory furnace production	
Lead	15,920.000 14.080.000	7,235.000 5,884.000
Total suspended solids	395.500.000	188.100.000
'	(1)	100,100.000
pH	(,)	(,)

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

### (f) Subpart G—Zinc Fuming Wet Air Pollution Control.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blas furance lead bullior produced	
Lead Zinc Total suspended solidspH	702.900 622.000 17,470.000 (1)	319.500 259.900 8,307.000 (¹)

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

### (g) Subpart G—Hard Lead Refining Slag Granulation.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pour lion pound lead produc	ls) of hard
LeadZinc	.000 .000 .000 (1)	.000 .000 .000 (1)

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

### (h) Subpart G—Hard Lead Refining Air Pollution Control.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
Lead	32,730.000 28,960.000 813,300.000 (1)	14,880.000 12,100.000 386,800.000 (1)

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

### (i) Subpart G—Facility Washdown.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead	.000 .000 .000	.000 .000 .000
pH	(1)	(1)

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

### (j) Subpart G-Employee Handwash.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead Zinc Total suspended solids	5.445 4.818 135.300	2.475 2.013 64.350
pH	(1)	(1)

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

### (k) Subpart G-Respirator Wash.

### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead	8.745 7.738	3.975 3.233
Total suspended solids	217.300	103.400
pH	(1)	(1)

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

### (l) Subpart G—Laundering of Uniforms.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
LeadZinc	25.580 22.630 635.500 (1)	11.630 9.455 302.300 (¹)

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

[49 FR 8803, Mar. 8, 1984; 49 FR 26739, June 29, 1984, as amended at 49 FR 29795, July 24, 1984]

### §421.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the appli-

cation of the best available technology economically achievable:

(a) Subpart G—Sinter Plant Materials Handling Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of sinter production	
LeadZinc	100.800 367.200	46.800 151.200

### (b) Subpart G—Blast Furnace Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
Lead	.000 .000	.000

### (c) Subpart G—Blast Furnace Slag Granulation.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bi lion pounds) of bla: furnace lead bullio produced	
LeadZinc	.000 .000	.000 .000

### (d) Subpart G—Dross Reverberatory Slag Granulation.

### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of slag, speiss, or matte granu- lated	
LeadZinc	1,612.000 5,872.000	748.400 2,418.000

### 40 CFR Ch. I (7-1-98 Edition)

### § 421.74

### (e) Subpart G—Dross Reverberatory Furnace Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of dross reverberatory furnace production	
Lead	.000 .000	.000

### (f) Subpart G—Zinc Fuming Wet Air Pollution Control.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil lion pounds) of blas furnance lead bullion produced	
LeadZinc	.000 .000	.000

### (g) Subpart G—Hard Lead Refining Slag Granulation.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
LeadZinc	.000 .000	.000 .000

### (h) Subpart G—Hard Lead Refining Wet Air Pollution Control.

### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
LeadZinc	.000 .000	.000

### (i) Subpart G-Facility Washdown.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pour lion pound bullion prod	ls) of lead
LeadZinc	.000 .000	.000

### (j) Subpart G-Employee Handwash.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil lion pounds) of lead bullion produced	
LeadZinc	.924 3.366	.429 1.386

### (k) Subpart G—Respirator Wash.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pour lion pound bullion prod	ls) of lead
LeadZinc	1.484 5.406	.689 2.226

### (l) Subpart G—Laundering of Uniforms.

### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pour lion pound bullion prod	ls) of lead
LeadZinc	4.340 15.810	2.015 6.510

### §421.74 Standards of performance for new sources.

Any new source subject to this subpart must achieve the following performance standards:

(a) Subpart G—Sinter Plant Materials Handling Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of sinter production	
Lead Zinc Total suspended solids	.000 .000 .000	.000 .000 .000
pH	(1)	(1)

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

### (b) Subpart G—Blast Furnace Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
Lead	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

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

### (c) Subpart G—Blast Furnace Slag Granulation.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnance lead bullion produced	
Lead Zinc Total suspended solidspH	.000 .000 .000 (1)	.000 .000 .000 (¹)

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

### (d) Subpart G—Dross Reverberatory Slag Granulation.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of slag, speiss, or matte granu- lated	
Lead Zinc Total suspended solids	.000 .000 .000	.000 .000

### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

### (e) Subpart G—Dross Reverberatory Furnace Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of dross reverberatory furnace production	
Lead Zinc Total suspended solidspH	.000 .000 .000 (1)	.000 .000 .000 (¹)

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

### $\begin{tabular}{ll} \begin{tabular}{ll} \beg$

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
Lead Zinc Total suspended solids pH	.000 .000 .000 (1)	.000 .000 .000 (1)

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

### (g) Subpart G—Hard Lead Refining Slag Granulation.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pour lion pound lead produc	ls) of hard
Lead Zinc Total suspended solidspH	.000 .000 .000 (1)	.000 .000 .000 (1)

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

(h) Subpart G—Hard Lead Refining Wet Air Pollution Control.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
Lead Zinc Total suspended solidspH	.000 .000 .000 (1)	.000 .000 .000 (¹)

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

### (i) Subpart G-Facility Washdown.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead Zinc Total suspended solidspH	.000 .000 .000 (1)	.000 .000 .000 (¹)

Within the range of 7.5 to 10.0 at all times.

### (j) Subpart G-Employee Handwash.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
LeadZinc	.924 3.366 49.500 (1)	.429 1.386 39.600 (¹)

Within the range of 7.5 to 10.0 at all times.

### (k) Subpart G—Respirator Wash.

### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead Zinc Total suspended solidspH	1.484 5.406 79.500 (1)	.689 2.226 63.600 (¹)

Within the range of 7.5 to 10.0 at all times.

(l) Subpart G—Laundering of Uniforms.

### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Zinc	4.340 15.810 232.500	2.015 6.510 186.000
Total suspended solidspH	(1)	(1)

Within the range of 7.5 to 10.0 at all times.

[49 FR 8803, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984]

### §421.75 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works mut comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in primary lead process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart G—Sinter Plant Materials Handling Wet Air Pollution Control.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per b lion pounds) of sinte production	
Lead	100.800 367.200	46.800 151.200

### (b) Subpart G—Blast Furnace Wet Air Pollution Control.

#### **PSES**

Pollutant or polluntant property	Maximum for any 1 day	Maximum for monthly average
		nd per billion of blast lead bullion
LeadZinc	.000 .000	.000

(c) Subpart G—Blast Furnace Slag Granulation.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pound per billion pounds) of blast furance lead bullion produced	
LeadZinc	.000 .000	.000

### (d) Subpart G—Dross Reverberatory Slag Granulation.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of slag, speiss, or matte granu- lated	
Lead	1,612.000 5,872.000	748.400 2,418.000

### (e) Subpart G—Dross Reverberatory Furnance Wet Air Pollution Control.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of dross reverberatory furnace production	
LeadZinc	.000 .000	.000

### (f) Subpart G—Zinc Fuming Wet Air Pollution Control.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
LeadZinc	.000 .000	.000

(g) Subpart G—Hard Lead Refining Slag Granulation.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
LeadZinc	.000 .000	.000

## (h) Subpart G—Hard Lead Refining Wet Air Pollution Control.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
LeadZinc	.000 .000	.000

### (i) Subpart G—Facility Washdown.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced.	
LeadZinc	.000 .000	.000

### (j) Subpart G—Employee Handwash.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
LeadZinc	.924 3.366	.429 1.386

### (k) Subpart G—Respirator Wash.

### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead	1.484	.689

#### PSES—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc	5.406	2.226

(l) Subpart G—Laundering of Uniforms.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
Lead	4.340 15.810	2.015 6.510

### §421.76 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary lead process wastewaters introduced into a POTW shall not exceed the following values.

(a) Subpart G—Sinter Plant Materials Handling Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of sinter production	
LeadZinc	.000 .000	.000

(b) Subpart G—Blast Furnace Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
LeadZinc	.000 .000	.000

(c) Subpart G—Blast Furnace Slag Granulation.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
LeadZinc	.000 .000	.000 .000

(d) Subpart G—Dross Reverberatory Slag Granulation.

#### **PSNS**

imum any 1	Maximum for monthly
ay	average
mg/kkg (pounds per bil lion pounds) of slag speiss, or matte granu lated	
.000	.000
	pound ss, or od

(e) Subpart G—Dross Reverberatory Furnace Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil lion pounds) of dross reverberatory furnace production	
LeadZinc	.000 .000	.000 .000

(f) Subpart G—Zinc Fuming Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of blast furnace lead bullion produced	
LeadZinc	.000 .000	.000

### (g) Subpart G—Hard Lead Refining Slag Granulation.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
Lead	.000	.000

### (h) Subpart G—Hard Lead Refining Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of hard lead produced	
Lead	.000 .000	.000

#### (i) Subpart G-Facility Washdown.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
LeadZinc	.000 .000	.000

#### (j) Subpart G—Employee Handwash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
LeadZinc	.924 3.366	.429 1.386

#### (k) Subpart G-Respirator Wash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 for month average	
	mg/kkg (pounds per bil- lion pounds) of lead bullion produced	
LeadZinc	1.484 5.406	.689 2.226

### (l) Subpart G—Laundering of Uniforms.

#### **PSNS**

Pollutant or pollutant property	Maximum Maximu for any 1 for monti averag	
	mg/kkg (pounds per bil lion pounds) of lead bullion produced	
LeadZinc	4.340 15.810	2.015 6.510

#### §421.77 [Reserved]

#### Subpart H—Primary Zinc Subcategory

Source: 49 FR 8808, Mar. 8, 1984, unless otherwise noted.

### § 421.80 Applicability: Description of the primary zinc subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of primary zinc by either electrolytic or pyrolytic means.

#### § 421.81 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

(b) The term product shall mean zinc metal.

# §421.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

#### **EFFLUENT LIMITATIONS**

Effluent characteristics	Maximum for any 1 day	Average of Daily values for 30 con- secutive days shall not exceed
	(1)English Units (pounds per 1,000 pounds of product)	
TSS	0.42	0.21
As	0.0016	0.0008
Cd	0.008	0.004
Se	0.08	0.04
Zn	0.08	0.04
pH	(1)	(¹)

Within the range of 6.0 to 9.0.

[49 FR 8808, Mar. 8, 1984; 49 FR 26739, June 29, 1984]

# §421.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart H—Zinc Reduction Furnace Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc reduced	
Cadmium Copper Lead Zinc	.334 2.135 .467 1.702	.134 1.018 .217 .701

### (b) Subpart H—Preleach of Zinc Concentrates.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of concentrate leached	
Cadmium	.180	.072
Copper	1.153	.550
Lead	.252	.117
Zinc	.919	.378

### (c) Subpart H—Leaching Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc proc- essed through leaching	
Cadmium	.000 .000 .000 .000	.000 .000 .000

### (d) Subpart H—Electrolyte Bleed Wastewater.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
Cadmium	.086	.035
Copper	.553	.264
Lead	.121	.056
Zinc	.441	.182

(e) Subpart H—Cathode and Anode Wash Wastewater.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
Cadmium	.150	.060
Copper	.961	.458
Lead	.210	.098
Zinc	.766	.315

### (f) Subpart H—Casting Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
Cadmium	.051	.021
Copper	.329	.157
Lead	.072	.033
Zinc	.262	.108

### (g) Subpart H—Casting Contact Cooling.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
Cadmium	.036	.014
Copper	.232	.110
Lead	.051	.024
Zinc	.185	.076

### $\begin{tabular}{ll} \begin{tabular}{ll} \beg$

#### BAT EFFLUENT LIMITATIONS

Copper         7.899         3.765           Lead         1.728         .802			
Cadmium         1.234         .494           Copper         7.899         3.765           Lead         1.728         .802	Pollutant or pollutant property	for any 1	for monthly
Copper         7.899         3.765           Lead         1.728         .802		pounds) of cadmium	
Lead	Cadmium	1.234	.494
	Copper	7.899	3.765
Zinc	Lead	1.728	.802
	Zinc	6.295	2.592

### §421.84 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Subpart H—Zinc Reduction Furnace Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc reduced	
Cadmium	.334	.134
Copper	2.135	1.018
Lead	.467	.217
Zinc	1.702	.701
Total suspended solids	25.020	20.020
pH	(1)	(1)

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

### (b) Subpart H—Preleach of Zinc Concentrates.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate leached	
Cadmium Copper Lead Zinc Total suspended solids pH	.180 1.153 .252 .919 13.520 (¹)	.072 .550 .117 .378 10.810

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

### (c) Subpart H—Leaching Wet Air Pollution Control.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc proc- essed through leaching	
Cadmium	.000	.000
Copper	.000	.000
Lead	.000	.000
Zinc	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

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

(d) Subpart H—Electrolyte Bleed Wastewater.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
Cadmium	.086	.035
Copper	.553	.264
Lead	.121	.056
Zinc	.441	.182
Total suspended solids	6.480	5.184
pH	(1)	(1)

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

### (e) Subpart H—Cathode and Anode Wash Wastewater.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
Cadmium	.150	.060
Copper	.961	.458
Lead	.210	.098
Zinc	.766	.315
Total suspended solids	11.270	9.012
pH	( <sup>1</sup> )	(¹)

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

### (f) Subpart H—Casting Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
Cadmium Copper Lead Zinc Total suspended solids pH	.051 .329 .072 .262 3.855 (¹)	.021 .157 .033 .108 3.084 (¹)

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

### (g) Subpart H—Casting Contact Cooling.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
Cadmium	.036 .232	.014 .110

#### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Lead	.051	.024
Total suspended solidspH	2.715 (¹)	2.172 (¹)

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

### (h) Subpart H—Cadmium Plant Wastewater.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cadmium produced	
Cadmium	1.234	.494
Copper	7.899	3.765
Lead	1.728	.802
Zinc	6.295	2.592
Total suspended solids	92.570	74.050
pH	(1)	(1)

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

[49 FR 8808, Mar. 8, 1984; 49 FR 26739, June 29, 1984, as amended at 49 FR 29795, July 24, 1984]

### § 421.85 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in primary zinc process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart H—Zinc Reduction Furnace Wet Air Pollution Control.

#### PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc reduced	
CadmiumZinc	.334 1.702	.134 .701

(b) Subpart H—Preleach of Zinc Concentrates.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate leached	
CadmiumZinc	.180 .919	.072 .378

(c) Subpart H—Leaching Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc proc- essed through leaching	
CadmiumZinc	.000 .000	.000

(d) Subpart H—Electrolyte Bleed Wastewater.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
Cadmium	.086 .441	.035 .182

(e) Subpart H—Cathode and Anode Wash Wastewater.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of cathode zinc produced	
Cadmium	.150 .766	.060 .315

(f) Subpart H—Casting Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
CadmiumZinc	.051 .262	.021 .108

(g) Subpart H—Casting Contact Cooling.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
CadmiumZinc	.036 .185	.014 .076

 $\begin{array}{lll} \hbox{(h)} & Subpart & H{--}Cadmium & Plant \\ Wastewater. & & \end{array}$ 

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cadmium produced	
CadmiumZinc	1.234 6.295	.494 2.592

### § 421.86 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary zinc process wastewaters introduced into a POTW shall not exceed the following values:

(a) Subpart H—Zinc Reduction Furnace Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc reduced	
CadmiumZinc	.334 1.702	.134 .701

### (b) Subpart H—Preleach of Zinc Concentrates.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate leached	
Cadmium	.180 .919	.072 .378

### (c) Subpart H—Leaching Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc proc- essed through leaching	
CadmiumZinc	.000 .000	.000 .000

### (d) Subpart H—Electrolyte Bleed Wastewater. Wastewater.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
CadmiumZinc	.086 .441	.035 .182

### (e) Subpart H—Cathode and Anode Wash Wastewater.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode zinc produced	
CadmiumZinc	.150 .766	.060 .315

### (f) Subpart H—Casting Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
CadmiumZinc	.051 .262	.021 .108

### (g) Subpart H—Casting Contact Cooling.

#### PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zinc cast	
CadmiumZinc	0.036 0.185	0.014 0.076

### $\begin{array}{lll} \hbox{(h)} & Subpart & H{--}Cadmium & Plant \\ Wastewater. & & \end{array}$

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cadmiun produced	
CadmiumZinc	1.234 6.295	0.494 2.592

#### §421.87 [Reserved]

#### Subpart I—Metallurgical Acid Plants Subcategory

#### § 421.90 Applicability: Description of the metallurgical acid plants subcategory.

The provisions of this subpart apply to process wastewater discharges resulting from or associated with the manufacture of by-product sulfuric acid at primary copper smelters, primary zinc facilities, primary lead facilities, and primary molybdenum facilities, including any associated air pollution control or gas-conditioning systems for sulfur dioxide off-gases from pyrometallurgical operations.

 $[49\;\mathrm{FR}\;8811,\;\mathrm{Mar.}\;8,\;1984,\;\mathrm{as}\;\mathrm{amended}\;\mathrm{at}\;50\;\mathrm{FR}\;38342,\;\mathrm{Sept.}\;20,\;1985]$ 

#### §421.91 Specialized definitions.

- (a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 apply to this subpart.
- (b) The term *product* means 100 percent equivalent sulfuric acid,  $H_2$  SO<sub>4</sub> capacity.

[50 FR 38342, Sept. 20, 1985]

# §421.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

SUBPART I-METALLURGICAL ACID PLANT

	BPT effluent limitations	
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds of 100% sul- furic acid capacity	
Cadmium	0.180 5.000	0.090 2.000

SUBPART I—METALLURGICAL ACID PLANT—
Continued

	BPT effluent limitations	
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Lead	1.800	0.790
Zinc	3.600	0.900
Fluoride 1	212.800	121.000
Molybdenum 1	40.180	20.790
Total suspended solids	304.000	152.000
pH	2	2

<sup>&</sup>lt;sup>1</sup> For Molybdenum Acid Plants Only.

[50 FR 38342, Sept. 20, 1985; 50 FR 52776, Dec. 26, 1985]

# § 421.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

SUBPART I—METALLURGICAL ACID PLANT—BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of furic acid ca	100 pct sul-
Arsenic Cadmium Copper Lead Zinc Fluoride <sup>1</sup>	3.550 0.511 3.269 0.715 2.605 89.390	1.584 0.204 1.558 0.332 1.073 50.820
Molybdenum <sup>1</sup>	[Reserved]	[Reserved].

<sup>&</sup>lt;sup>1</sup> For Molybdenum acid plants only.

[50 FR 38343, Sept. 20, 1985, as amended at 55 FR 31697, Aug. 3, 1990]

### § 421.94 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

<sup>&</sup>lt;sup>2</sup> Within the range of 6.0 to 9.0 at all times.

§ 421.95

SUBPART I-METALLURGICAL ACID PLANT-**NSPS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of 100 pct sul- furic acid capacity	
Arsenic Cadmium Copper Lead Zinc Fluoride¹ Molybdenum¹ Total suspended solids pH	3.550 0.511 3.269 0.715 2.605 89.390 [Reserved] 38.310	1.584 0.204 1.558 0.332 1.073 50.820 [Reserved]. 30.650

<sup>&</sup>lt;sup>1</sup> For Molybdenum acid plants only. <sup>2</sup> Within the range of 7.5 to 10.0 at all times.

[50 FR 38343, Sept. 20, 1985, as amended at 55 FR 31697, Aug. 3, 1990]

#### §421.95 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in metallurgical acid plant blowdown introduced into a POTW shall not exceed the following values:

SUBPART I-METALLURGICAL ACID PLANT-**PSES** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per/million pounds) of 100 pct sul- furic acid capacity	
CadmiumZinc	0.511 2.605	0.204 1.073

[50 FR 38343, Sept. 20, 1985]

#### §421.96 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in metallurgical

acid plant blowdown introduced into a POTW shall not exceed the following values:

SUBPART I-METALLURGICAL ACID PLANT-**PSNS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of 100 pct sul- furic acid capacity	
Arsenic Cadmium Copper Lead Zinc Fluoride 1 Molybdenum 1	3.550 0.511 3.269 0.715 2.605 89.390 [Reserved]	1.584 0.204 1.558 0.332 1.073 50.820 [Reserved].

<sup>&</sup>lt;sup>1</sup> For Molybdenum acid plants only.

[50 FR 38343, Sept. 20, 1985, as amended at 55 FR 31697, Aug. 3, 1990]

#### §421.97 [Reserved]

#### Subpart J—Primary Tungsten Subcategory

#### §421.100 Applicability: Description of the primary tungsten subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of tungsten at primary tungsten facilities.

[49 FR 8812, Mar. 8, 1984]

#### §421.101 Specialized definitions.

For the purpose of this subpart the general information, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this sub-

[49 FR 8812, Mar. 8, 1984]

#### §421.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently avail-

Except as provided in  $40\ \text{CFR}\ 125.30$ through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

#### (a) Subpart J—Tungstic Acid Rinse.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	17.230	8.205
Zinc	59.900	25.030
Ammonia (as N)	5,469.000	2,404.00
Total suspended solids	1,682.000	800.000
pH	(1)	(¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

#### (b) Subpart J-Acid Leach Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	15.040	7.162
Zinc	52.280	21.840
Ammonia (as N)	4,773.000	2,098.000
Total suspended solids	1,468.000	698.300
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

#### (c) Subpart J-Alkali Leach Wash.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of sodium (as W) pro-
Lead	0.000	0.000
Zinc	0.000	0.000
Ammonia (as N)	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

#### (d) Subpart J-Alkali Leach Wash Condensate.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of sodium tungstate (as W) pro- duced	
LeadZinc	8.057 28.011	3.837 11.700
Ammonia (as N)	2.557.000	1.124.000
Total suspended solids	786.200	374.100
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(e) Subpart J-Ion Exchange Raffinate (Commingled With Other Process or Nonprocess Waters).

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
Lead	37.160	17.700
Zinc	129.200	53.970
Ammonia (as N)	11,790.000	5,185.000
Total Suspended solids	3,627.000	1,726.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

#### (f) Subpart J-Ion Exchange Raffinate (Not Commingled With Other Process or Nonprocess Waters).

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
Lead	37.160 129.200	17.700 53.970
Ammonia (as N) (2)	11.790.000	5.185.000
Total suspended solids	3,627.000	1,726.000
pH	(1)	(1)

#### (g) Subpart J—Calcium Tungstate Precipitate Wash.

¹ Within the range of 7.0 to 10.0 at all times.
²The effluent limitation guideline for this pollutant does not apply if (a) the mother liquor feed to the ion exchange process or the raffinate from the ion exchange process contains sulfates at concentrations exceeding 1000 mg/l; (b) this mother liquor or raffinate is treated by ammonia steam stripping; and (c) such mother liquor or raffinate is not commingled with any other process or nonprocess waters prior to steam stripping for ammonia removal.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of calcium tungstate (as W) pro- duced	
Lead	31.000	14.760
Zinc	107.800	45.020
Ammonia (as N)	9,838.000	4,325.000
Total suspended solids	3,026.000	1,439.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (h) Subpart J—Crystallization and Drying of Ammonium Paratungstate.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium paratungstate (as W) produced	
Lead	0.000	0.000
Zinc	0.000	0.000
Ammonia (as N)	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

# (i) Subpart J—Ammonium Paratungstate Conversion to Oxides Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic oxide (as W) produced	
LeadZinc	11.600 40.320	5.523 16.850
Ammonia (as N)	3.681.000	1.618.000
Total suspended solids	1,132.000	538.500
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup>Within the range of 7.0 to 10.0 at all times.

# $\begin{array}{lll} \mbox{(j)} & \mbox{Subpart} & \mbox{$J-$Ammonium} \\ \mbox{Paratungstate Conversion to Oxides} \\ \mbox{Water of Formation.} \end{array}$

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic oxide (as W) produced	
Lead	0.026 0.092 8.398 2.583 (1)	0.013 0.038 3.692 1.229 (¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### $\begin{tabular}{ll} (k) & Subpart & J-Reduction & to & Tungsten Wet & Air Pollution Control. \end{tabular}$

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	12.940 44.970 4,106.000 1,263.000 (¹)	6.161 18.790 1,805.000 600.700 (¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

### (l) Subpart J—Reduction to Tungsten Water of Formation.

#### BPT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1	Maximum for monthly
	day average mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	.205 .714 65.190 20.050 (1)	.098 .298 28.660 9.536 (1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  Within the range of 7.0 to 10.0 at all times.

### (m) Subpart J—Tungsten Powder Acid Leach and Wash.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
LeadZinc	1.008 3.504	0.48 1.464
Ammonia (as N)	319.900	140.700

#### BPT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Total suspended solidspH	98.400 (¹)	46.800 (¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(n) Subpart J—Molybdenum Sulfide Precipitation Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
pH	(1)	(¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

 $[49\ FR\ 8812,\ Mar.\ 8,\ 1984,\ as\ amended\ at\ 53\ FR\ 1706,\ Jan.\ 21,\ 1988]$ 

#### §421.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achiev-

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

(a) Subpart J—Tungstic Acid Rinse.

**BAT EFFLUENT LIMITATIONS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	11.490	5.333
Zinc	41.850	17.230
Ammonia (as N)	5,469.000	2,404.000

(b) Subpart J—Acid Leach Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
LeadZincAmmonia (as N)	1.003 3.653 477.400	0.466 1.504 209.900

#### (c) Subpart J-Alkali Leach Wash.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millio pounds) of sodiur tungstate (as W) pro duced	
Lead	0.000 0.000 0.000	0.000 0.000 0.000

(d) Subpart J—Alkali Leach Wash Condensate.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millio pounds) of sodiur tungstate (as W) pro duced	
Lead Zinc Ammonia (as N)	5.372 19.570 2,557.000	2.494 8.057 1,124.000

(e) Subpart J—Ion Exchange Raffinate (Commingled With Other Process or Nonprocess Waters).

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
Lead	24.780 90.240 11,790.000	11.500 37.160 5,185.000

(f) Subpart J—Ion Exchange Raffinate (Not Commingled With Other Process or Nonprocess Waters).

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
Lead	24.780	11.500
ZincAmmonia (as N) 1	90.240 11,790.000	37.160 5,185.000

<sup>1</sup> The effluent limitation for this pollutant does not apply if a) the motor liquor feed to the ion exchange process or the raffinate from the ion exchange process contains sulfates at concentrations exceeding 1000 mg/1; b) this mother liquor or raffinate is treated by ammonia steam stripping; and c) such mother liquor or raffinate is not commingled with any other process or nonprocess waters prior to steam stripping for ammonia removal.

### (g) Subpart J—Calcium Tungstate Precipitate Wash.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of calcium tungstate (as W) pro- duced	
Lead Zinc Ammonia (as N)	20.670 75.280 9,838.000	9.594 31.000 4,325.000

### (h) Subpart J—Crystallization and Drying of Ammonium Paratungstate.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of ammonium paratungstate (as W) produced	
Lead Zinc Ammonia (as N)	0.000 0.000 0.000	0.000 0.000 0.000

(i) Subpart J—Ammonium Paratungstate Conversion to Oxides Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of tungstic oxide (as W) produced	
Lead Zinc Ammonia (as N)	0.773 2.817 368.200	0.359 1.160 161.900

(j) Subpart J—Ammonium Paratungstate Conversion to Oxides Water of Formation.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of tungstic oxide (as W) produced	
Lead Zinc Ammonia (as N)	0.018 0.064 8.398	0.008 0.026 3.692

### (k) Subpart J—Reduction to Tungsten Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per/millior pounds) of tungster metal produced	
Lead Zinc Ammonia (as N)	0.862 3.142 410.600	0.400 1.294 180.500

### (l) Subpart J—Reduction to Tungsten Water of Formation.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of tungsten metal produced	
Lead Zinc Ammonia (as N)	0.137 0.499 65.190	0.064 0.205 28.660

(m) Subpart J—Tungsten Powder Acid Leach and Wash.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	0.672 2.448 319.900	0.312 1.008 140.700

(n) Subpart J-Molybdenum Sulfide Precipitation Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead Zinc	0.000 0.000 0.000	0.000 0.000 0.000

[49 FR 8812, Mar. 8, 1984, as amended at 53 FR 1708, Jan. 21, 1988]

#### §421.104 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:
(a) Subpart J—Tungstic Acid Rinse.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	11.490	5.333
Zinc	41.850	17.230
Ammonia (as N)	5,469.000	2,404.000
Total suspended solids	615.400	492.300
pH	(1)	(1)

<sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(b) Subpart J-Acid Leach Wet Air Pollution

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	1.003	0.466
Zinc	3.653	1.504
Ammonia (as N)	477.400	209.900
Total suspended solids	53.720	42.970
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(c) Subpart J-Alkali Leach Wash.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of sodium (as W) pro-
Lead	0.000	0.000
Zinc	0.000	0.000
Ammonia (as N)	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(d) Subpart J-Alkali Leach Wash Condensate.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of sodium tungstate (as W) pro- duced	
Lead	5.372	2.494
Zinc	19.570	8.057
Ammonia (as N)	2,557.000	1,124.000
Total suspended solids	287.800	229.600
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(e) Subpart J—Ion Exchange Raffinate (Commingled With Other Process or Nonprocess Waters).

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
LeadZinc	24.780 90.240	11.500 37.160
Ammonia (as N)	11.790.000	5.185.000
Total suspended solids	1,327.000	1,062.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(f) Subpart J-Ion Exchange Raffinate (Not Commingled With Other Process or Nonprocess Waters).

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
LeadZinc	24.780 90.240	11.500 37.160
Ammonia (as N) (2)	11,790.000	5,185.000
Total suspended solids	1,327.000	1,062.000
pH	(1)	(¹)

#### (g) Subpart J-Calcium Tungstate Precipitate Wash.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of calcium tungstate (as W) pro- duced	
LeadZinc	20.670 75.280	9.594 31.000
Ammonia (as N)	9,838.000	4,325.000
Total suspended solids	1,107.000	885.600
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(h) Subpart J-Crystallization and Drying of Ammonium Paratungstate.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium paratungstate (as W) produced	
Lead	0.000	0.000
Zinc	0.000	0.000
Ammonia (as N)	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

Subpart J—Ammonium Paratungstate Conversion to Oxides Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound per million pounds) of tungstic oxide (as W) produced	
Lead	0.773	0.359
Zinc	2.817	1.160
Ammonia (as N)	368.200	161.900
Total suspended solids	41.430	33.150
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

Subpart J-Ammonium Paratungstate Conversion to Oxides Water of Formation.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic oxide (as W) produced	
Lead	0.018	0.008
Zinc	0.064	0.026
Ammonia (as N)	8.398	3.692
Total suspended solids	0.945	0.756
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

<sup>1</sup> Within the range of 7.0 to 10.0 at all times.
2 The new source standard for this pollutant does not apply if (a) the mother liquor feed to the ion exchange process or the raffinate from the ion exchange process contains sulfates at concentrations exceeding 1000 mg/l; (b) this mother liquor or raffinate is treated by ammonia steam stripping, and (c) such mother liquor or raffinate is not commingled with any other process or nonprocess waters prior to steam stripping for ammonia removal. for ammonia removal.

<sup>(</sup>k) Subpart J-Reduction to Tungsten Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	.862	.400
Zinc	3.142	1.294
Ammonia (as N)	410.600	180.500
Total suspended solids	46.200	36.960
pH	(1)	(¹)

<sup>1</sup>Within the range of 7.0 to 10.0 at all times.

(l) Subpart J—Reduction to Tungsten Water of Formation.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	.137	.064
Zinc	.499	.205
Ammonia (as N)	65.190	28.660
Total suspended solids	7.335	5.868
pH	(1)	(¹)

<sup>1</sup>Within the range of 7.0 to 10.0 at all times.

(m) Subpart J-Tungsten Power Acid Leach and Wash.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	.672 2.448	.312 1.008
Ammonia (as N)	319.900	140.700
Total suspended solids	36.000	28.800
pH	(1)	(1)

<sup>1</sup>Within the range of 7.0 to 10.0 at all times.

(n) Subpart J-Molybdenum Sulfide Precipitation Wet Air Pollution Con-

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead Zinc Ammonia (as N) Total suspended solids pH	.00 .000 .000 .000 .000	.000 .000 .000 .000 (1)

<sup>1</sup>Within the range of 7.0 to 10.0 at all times.

[49 FR 8812, Mar. 8, 1984, as amended at 53 FR 1709, Jan. 21, 1988]

#### §421.105 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in primary tungsten process wastewater introduced into a POTW shall not exceed the following values:
(a) Subpart J—Tungstic Acid Rinse.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead Zinc Ammonia (as N)	11.490 41.850 5,469.000	5.333 17.230 2,404.000

(b) Subpart J-Acid Leach Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	1.003 3.653 477.400	0.466 1.504 209.900

(c) Subpart J—Alkali Leach Wash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstate (as W) produced	
Lead Zinc Ammonia (as N)	0.000 0.000 0.000	0.000 0.000 0.000

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#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of sodium tungstate (as W) pro- duced	
Lead	5.372	2.494
Zinc	19.570	8.057
Ammonia (as N)	2,557.000	1,124.000

(e) Subpart J—Ion Exchange Raffinate (Commingled With Other Process or Nonprocess Waters).

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstate (as W) produced	
Lead	24.780 90.240 11,790.000	11.500 37.160 5,185.000

(f) Subpart J—Ion Exchange Raffinate (Not Commingled With Other Process or Nonprocess Waters).

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium tungstate (as W) pro- duced	
LeadZinc	24.780 90.240	11.500 37.160

#### PSES—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N) <sup>1</sup>	11,790.000	5,185.000

<sup>&</sup>lt;sup>1</sup>The pretreatment standard for this pollutant does not apply if (a) the mother liquor feed to the ion exchange process or the raffinate from the ion exchange process contains sulfate at concentrations exceeding 1000 mg/l; (b) this mother liquor or raffinate is treated by ammonia steam stripping; and (c) such mother liquor or raffinate is not commingled with any other process or nonprocess waters prior to steam stripping for ammonia removal.

### (g) Subpart J—Calcium Tungstate Precipitate Wash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of calcium tungstate (as W) pro- duced	
Lead Zinc Ammonia (as N)	20.670 75.280 9,838.000	9.594 31.000 4,325.000

### (h) Subpart J—Crystallization and Drying of Ammonium Paratungstate.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of ammonium paratungstate (as W) produced	
Lead Zinc Ammonia (as N)	0.000 0.000 0.000	0.000 0.000 0.000

(i) Subpart J—Ammonium Paratungstate Conversion to Oxides Wet Air Pollution Control.

#### **PSES**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of tungstic oxide (as W) produced	
0.773 2.817 368.200	0.359 1.160 161.900
	for any 1 day  mg/kg (pound pounds) oxide (as W

(j) Subpart J—Ammonium Paratungstate Conversion to Oxides Water of Formation.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic oxide (as W) produced	
Lead Zinc Ammonia (as N)	0.018 0.064 8.398	0.008 0.026 3.692

(k) Subpart J—Reduction to Tungsten Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead Zinc Ammonia (as N)	.862 3.142 410.600	.400 1.294 180.500

(l) Subpart J—Reduction to Tungsten Water of Formation.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead	.137 .499 65.190	.064 .205 28.660

(m) Subpart J—Tungsten Powder Pollution Control. Acid Leach and Wash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead Zinc	.672 2.448 319.900	.312 1.008 140.700

(n) Subpart J-Molybdenum Sulfide Precipitation Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds of tungsten metal produced	
LeadZinc	0.000 0.000 0.000	0.000 0.000 0.000

[49 FR 8812, Mar. 8, 1984, as amended at 53 FR 1711, Jan. 21, 1988]

### § 421.106 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary tungsten process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart J—Tungstic Acid Rinse.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungstic acid (as W) produced	
Lead	11.490 41.850 5,469.000	5.333 17.230 2,404.000

(b) Subpart J—Acid Leach Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of tungstic acid (as W) produced	
Lead Zinc Ammonia (as N)	1.003 3.653 477.400	0.466 1.504 209.900

(c) Subpart J-Alkali Leach Wash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of sodium tungstate (as W) pro- duced	
Lead Zinc Ammonia (as N)	0.000 0.000 0.000	0.000 0.000 0.000

### (d) Subpart J—Alkali Leach Wash Condensate.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of sodium tungstate (as W) pro- duced	
Lead Zinc Ammonia (as N)	5.372 19.570 2,557.000	2.494 8.057 1,124.000

(e) Subpart J—Ion Exchange Raffinate (Commingled With Other Process or Nonprocess Waters).

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of ammonium tungstate (as W) pro- duced	
Lead Zinc Ammonia (as N)	24.780 90.240 11,790.000	11.500 37.160 5,185.000

(f) Subpart J—Ion Exchange Raffinate (Not Commingled With Other Process or Nonprocess Waters).

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of ammonium tungstate (as W) pro- duced	
LeadZinc	24.780 90.240	11.500 37.160

#### PSNS—Continued

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
Ammonia (as N)(1)	11,790.000	5,185.000

<sup>&</sup>lt;sup>1</sup>The pretreatment standard for this pollutant does not apply if a) the mother liquor feed to the ion exchange process or the raffinate from the ion exchange process contains sulfates at concentrations exceeding 1000 mg/l; b) this mother liquor or raffinate is treated by ammonia steam stripping; and c) such mother liquor or raffinate is not commingled with any other process or nonprocess waters prior to steam stripping for ammonia removal.

### (g) Subpart J—Calcium Tungstate Precipitate Wash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of calcium tungstate (as W) pro- duced	
Lead Zinc Ammonia (as N)	20.670 75.280 9,838.000	9.594 31.000 4,325.000

### (h) Subpart J—Crystallization and Drying of Ammonium Paratungstate.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
		ds per mil- ammonium ate (as W)
Lead Zinc Ammonia (as N)	0.000 0.000 0.000	0.000 0.000 0.000

(i) Subpart J—Ammonium Paratungstate Conversion to Oxides Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of tungstic oxide (as W) produced	
Lead Zinc Ammonia (as N)	0.773 2.817 368.200	0.359 1.160 161.900

(j) Subpart J—Ammonium Paratungstate Conversion to Oxides Water of Formation.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of tungstic oxide (as W) produced	
Lead Zinc Ammonia (as N)	0.018 0.064 8.398	0.008 0.026 3.692

(k) Subpart J—Reduction to Tungsten Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (pounds per mil- lion) of tungsten metal produced	
Lead Zinc Ammonia (as N)	.862 3.142 410.600	.400 1.294 180.500

(l) Subpart J—Reduction to Tungsten Water of Formation.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (lb/ million lbs) of tungsten metal produced	
LeadZincAmmonia (as N)	.137 .499 65.190	.064 .205 28.660

(m) Subpart J—Tungsten Powder Acid Leach and Wash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (parts per million) of tungsten metal produced	
LeadZincAmmonia (as N)	.672 2.448 319.900	.312 1.008 140.700

(n) Subpart J—Molybdenum Sulfide Precipitation Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/kg (parts per million) of tungsten metal pro- duced	
Lead	0.000 0.000 0.000	0.000 0.000 0.000

[49 FR 8812, Mar. 8, 1984, as amended at 53 FR 1712, Jan. 21, 1988]

#### §421.107 [Reserved]

#### Subpart K—Primary Columbium-Tantalum Subcategory

## § 421.110 Applicability: Description of the primary columbium-tantalum subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of columbium or tantalum by primary columbium-tantalum facilities.

[49 FR 8817, Mar. 8, 1984]

#### §421.111 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

[49 FR 8817, Mar. 8, 1984]

#### § 421.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Subpart K—Concentrate Digestion Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	2.612	1.244
Zinc	9.080	3.794
Ammonia (as N)	829.000	364.500
Fluoride	217.700	124.400
Total suspended solids	255.000	121.300
pH	(1)	(1)

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

### (b) Subpart K—Solvent Extraction Raffinate.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	3.888	1.851
Zinc	13.520	5.647
Ammonia (as N)	1,233.000	542.500
Fluoride	324.000	185.100
Total Suspended Solids	379.500	189.500
pH	(1)	( <sup>1</sup> )

AAWithin the range of 7.5 to 10.0 at all times.

### (c) Subpart K—Solvent Extraction Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pound pounds) of digested	ls per million concentrate
1.032	.491
3.586	1.498
327.400	143.900
85.960	49.120
100.700	47.890
(1)	(1)
	for any 1 day  mg/kg (pound pounds) of digested  1.032 3.586 327.400 85.960 100.700

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

### (d) Subpart K—Precipitation and Filtration.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	5.750 19.990 1,825.000 479.100 561.300 (1)	2.738 8.350 802.200 273.800 267.000 (1)

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

### (e) Subpart K—Precipitation and Filtration Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	26.680 92.730 8,466.000 2,223.000 2,604.000 (1)	12.700 38.740 3,722.000 1,270.000 1,239.000 (1)

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

### (f) Subpart K—Tantalum Salt Drying.

#### BPT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tantalum salt dried	
Lead	25.430 88.390 8,070.000 2,119.000 2,482.000 (1)	12.110 36.930 3,548.000 1,211.000 1,181.000 (1)

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

### (g) Subpart K—Oxides Calcining Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium- tantalum oxide dried	
Lead	16.140	7.685

#### BPT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc	56.100 5,122.000 1,345.000 1,576.000 (1)	23.440 2,252.000 768.500 749.200 (1)

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

### (h) Subpart K—Reduction of Tantalum Salt to Metal.

**BPT EFFLUENT LIMITATIONS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
Lead	69.750	33.220
Zinc	242.500	101.300
Ammonia (as N)	22,140.000	9,732.000
Fluoride	5,813.000	3,322.000
Total suspended solids	6,809.000	3,239.000
pH	(1)	(1)

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

## (i) Subpart K—Reduction of Tantalum Salt to Metal Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
Lead Zinc Ammonia (as N) Fluoride Total suspended solids pH	.858 2.983 272.400 71.510 83.770 (¹)	.409 1.246 119.700 40.860 39.840 (¹)

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

### (j) Subpart K—Tantalum Powder Wash.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum power washed	
Lead	8.582 29.830 2,724.000 715.200	4.087 12.470 1,198.000 408.700

#### BPT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Total suspended solidspH	837.800 (¹)	398.500 (¹)

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

### (k) Subpart K—Consolidation and Casting Contact Cooling.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium or tantalum cast or con- solidated	
Lead	.000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000 (1)

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

[49 FR 8817, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984; 50 FR 12253, Mar. 28, 1985]

#### §421.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart K—Concentrate Digestion Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	.174 .635 82.910 21.770	.081 .261 36.450 12.440

### (b) Subpart K—Solvent Extraction Raffinate.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/Kg (pounds per million pounds) of concentrate digested	
LeadZincAmmonia (as N)Fluoride	2.592 9.442 1,233.000 324.000	1.203 3.888 542.5000 185.100

### (c) Subpart K—Solvent Extraction Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead Zinc Ammonia (as N) Fluoride	.069 .251 32.790 8.610	.032 .103 14.420 4.920

### (d) Subpart K—Precipitation and Filtration.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
LeadZincAmmonia (as N)Fluoride	3.833 13.960 1,825.000 479.100	1.780 5.750 802.200 273.800

### (e) Subpart K—Precipitation and Filtration Wet Air Pollution Control.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of concentrate digested	
Lead	1.778 6.478 846.600 222.300	.826 2.668 372.200 127.000

(f) Subpart K—Tantalum Salt Drying.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tantalum salt dried	
Lead Zinc Ammonia (as N) Fluoride	16.950 61.750 8,070.000 2,119.000	7.871 25.430 3,548.000 1,211.000

### (g) Subpart K—Oxides Calcining Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium-tantalum oxide	
Lead Zinc	1.076 3.919 512.200 134.500	.500 1.614 225.200 76.840

### (h) Subpart K—Reduction of Tantalum Salt to Metal.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tantalum salt reduced	
Lead	46.500 169.400 22,140.000 5,813.000	21.590 69.750 9,732.000 3,322.000

## (i) Subpart K—Reduction of Tantalum Salt to Metal Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tantalum salt reduced	
Lead	.572 2.084 71.510	.266 .858 40.860

(j) Subpart K—Tantalum Powder Wash.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder washed	
LeadZinc	5.721 20.840	2.656 8.582
Ammonia (as N)	2,724.000 715.200	1,198.000 408.700

### (k) Subpart K—Consolidation and Casting Contact Cooling.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium or tantalum cast or con- solidated	
Lead	.000	.000
Ammonia (as N)	.000	.000
Fluoride	.000	.000

[49 FR 8817, Mar. 8, 1984, as amended at 50 FR 12253, Mar. 28, 1985]

### §421.114 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a)  $\dot{S}$ ubpart K—Concentrate Digestion Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	.174	.081
Zinc	.635	.261
Ammonia (as N)	82.910	36.450
Fluoride	21.770	12.440
Total suspended solids	9.330	7.464
pH	(1)	(¹)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

### (b) Subpart K—Solvent Extraction Raffinate.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of concentrate digested	
LeadZinc	2.592 9.442	1.203 3.888
Ammonia (as N)	1.233.000	542.5000
Fluoride	324.000	185.100
Total Suspended Solids	138.900	111.100
pH	(1)	(1)

AA1 Within the range of 7.5 to 10.0 at all times.

### (c) Subpart K—Solvent Extraction Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of concentrate digested	
Lead	.069 .251 32.790 8.610 3.690 (¹)	.032 .103 14.420 4.920 2.952 (1)

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

### (d) Subpart K—Precipitation and Filtration.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of concentrate digested	
Lead	3.833 13.960 1,825.000 479.100 205.400 (¹)	1.780 5.750 802.200 273.800 164.300 (¹)

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

(e) Subpart K—Precipitation and Filtration Wet Air Pollution Control.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	1.778 6.478 846.600 222.300 95.270	.826 2.668 372.200 127.000 76.210
pH	(1)	(¹)

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

### (f) Subpart K—Tantalum Salt Drying.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt dried	
Lead	16.950	7.871
Zinc	61.750	25.430
Ammonia (as N)	8,070.000	3,548.000
Fluoride	2,119.000	1,211.000
Total suspended solids	908.200	726.500
pH	(1)	(1)

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

### (g) Subpart K—Oxides Calcining Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium- tantalum oxide dried	
Lead	1.076	.500
Zinc	3.919	1.614
Ammonia (as N)	512.200	225.200
Fluoride	134.500	76.840
Total suspended solids	57.630	46.110
pH	(1)	(1)

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

### (h) Subpart K—Reduction of Tantalum Salt to Metal.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
Lead	46.500	21.590

#### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc Ammonia (as N) Fluoride Total suspended solids pH	169.400 22,140.000 5,813.000 2,491.000 (1)	69.750 9,732.000 3,322.000 1,993.000 (¹)

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

# (i) Subpart K—Reduction of Tantalum Salt to Metal Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
Lead	.572	.266
Zinc	2.084	.858
Ammonia (as N)	272.400	119.700
Fluoride	71.510	40.860
Total suspended solids	30.650	24.520
pH	(1)	(1)

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

### (j) Subpart K—Tantalum Powder Wash.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder washed	
Lead	5.721 20.840 2,724.000 715.200 306.500 (¹)	2.656 8.582 1,198.000 408.700 245.200 (1)

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

### (k) Subpart K—Consolidation and Casting Contact Cooling.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium or tantalum cast or con- solidated	
Lead	.000	.000
Ammonia (as N)	.000	.000

NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Fluoride	.000	.000
Total suspended solids	.000	.000
pH	(1)	(¹)

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

[49 FR 8817, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984; 50 FR 12253, Mar. 28, 1985]

### §421.115 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in primary columbium-tantalum process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart K—Concentrate Digestion Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead Zinc Ammonia (as N) Fluoride	.174 .635 82.910 21.770	.081 .261 36.450 12.440

(b) Subpart K—Solvent Extraction Raffinate.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	2.592 9.442 1,233.000 324.000	1.203 3.888 542.5000 185.100

(c) Subpart K—Solvent Extraction Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead Zinc	.069 .251 32.790 8.610	.032 .103 14.420 4.920

(d) Subpart K—Precipitation and Filtration.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead Zinc	3.833 13.960 1,825.000 479.100	1.780 5.750 802.200 273.800

(e) Subpart K—Precipitation and Filtration Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
LeadZinc	1.778 6.478	.826 2.668
Ammonia (as N)	846.600 222.300	372.200 127.000

(f) Subpart K—Tantalum Salt Drying.

#### **PSES**

Dellistent on a llistent named	Maximum	Maximum
Pollutant or pollutant property	for any 1 day	for monthly average
	mg/kg (pounds per million pounds) of tantalum salt dried	
Lead	16.950	7.871
Zinc	61.750	25.430
Ammonia (as N)	8,070.000	3,548.000
Fluoride	2,119.000	1,211.000

(g) Subpart K—Oxides Calcining Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium- tantalum oxide dried	
Lead	1.076 3.919 512.200 134.500	.500 1.614 225.200 76.840

(h) Subpart K—Reduction of Tantalum Salt to Metal.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
LeadZincAmmonia (as N)Fluoride	46.500 169.400 22,140.000 5,813.000	21.590 69.750 9,732.000 3,322.000

(i) Subpart K—Reduction of Tantalum Salt to Metal Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
LeadZincAmmonia (as N)Fluoride	.572 2.084 272.400 71.510	.266 .858 119.700 40.860

(j) Subpart K—Tantalum Powder Wash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder washed	
Lead	5.721 20.840 2,724.000 715.200	2.656 8.582 1,198.000 408.700

(k) Subpart K—Consolidation and Casting Contact Cooling.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium or tantalum cast or con- solidated	
Lead Zinc Ammonia (as N) Fluoride	.000 .000 .000 .000	.000 .000 .000

 $[49\ FR\ 8817,\ Mar.\ 8,\ 1984,\ as\ amended\ at\ 50\ FR\ 12253,\ Mar.\ 28,\ 1985]$ 

### § 421.116 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary columbium-tantalum process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart K—Concentrate Digestion Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead Zinc	.174 .635 82.910 21.770	.081 .261 36.450 12.440

(b) Subpart K—Solvent Extraction Raffinate.

#### **PSNS**

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of concentrate digested	
2.592 9.442 1,233.000 324.000	1.203 3.888 542.5000 185.100
	for any 1 day mg/kg (pound pounds) of digested 2.592 9.442 1,233.000

### (c) Subpart K—Solvent Extraction Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	.069	.032
Zinc	.251	.103
Ammonia (as N)	32.790	14.420
Fluoride	8.610	4.920

### (d) Subpart K—Precipitation and Filtration.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
LeadZincAmmonia (as N)Fluoride	3.833 13.960 1,825.000 479.100	1.780 5.750 802.200 273.800

### (e) Subpart K—Precipitation and Filtration Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of concentrate digested	
Lead	1.778	.826
Zinc	6.478	2.668
Ammonia (as N)	846.600	372.200
Fluoride	222.300	127.000

### (f) Subpart K—Tantalum Salt Drying.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tantalum salt dried	
Lead	16.950 61.750 8,070.000	7.871 25.430 3,548.000
Fluoride	2,119.000	1,211.000

(g) Subpart K—Oxides Calcining Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium- tantalum oxide dried	
Lead Zinc Ammonia (as N) Fluoride	1.076 3.919 512.200 134.500	.500 1.614 225.200 76.840

### (h) Subpart K—Reduction of Tantalum Salt to Metal.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
Lead	46.500 169.400 22,140.000 5,813.000	21.590 69.750 9,732.000 3,322.000
ridoride	3,613.000	3,322.000

## (i) Subpart K—Reduction of Tantalum Salt to Metal Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum salt reduced	
Lead Zinc	.572 2.084 272.400 71.510	.266 .858 119.700 40.860

### (j) Subpart K—Tantalum Powder Wash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder washed	
Lead Zinc Ammonia (as N)	5.721 20.840 2,724.000	2.656 8.582 1,198.000

PSNS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Fluoride	715.200	408.700

### (k) Subpart K—Consolidation and Casting Contact Cooling.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of columbium or tantalum cast or con- solidated	
Lead	.000 .000 .000	.000 .000 .000

[49 FR 8817, Mar. 8, 1984, as amended at 50 FR 12253, Mar. 28, 1985]

#### §421.117 [Reserved]

#### Subpart L—Secondary Silver Subcategory

SOURCE: 49 FR 8821, Mar. 8, 1984, unless otherwise noted.

### §421.120 Applicability: Description of the secondary silver subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of silver from secondary silver facilities processing photographic and nonphotographic raw materials.

 $[49\ FR\ 8821,\ Mar.\ 8,\ 1984;\ 49\ FR\ 26739,\ June\ 29,\ 1984]$ 

#### §421.121 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently avail-

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

#### (a) Subpart L—Film Stripping.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from film stripping	
CopperZinc	95.670 73.510	50.350 30.720
Ammonia (as N)	6,712.000	2,951.000
Total suspended solids	2,065.000	981.800
pH	(1)	(1)

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

(b) Subpart L—Film Stripping Wet Air Pollution Control and Precipitation and Filtration of Film Stripping Solutions Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of film stripping solutions	
Copper Zinc Ammonia (as N)	1.843 1.416 129.300	.970 .592 56.840
Total suspended solidspH	39.770 (¹)	18.920 (¹)

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

(c) Subpart L—Precipitation and Filtration of Film Stripping Solutions.

#### BPT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N) Total suspended solids pH	109.400 84.050 7,674.000 2,361.000 (1)	57.570 35.120 3,374.000 1,123.000 (1)

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

(d) Subpart L—Precipitation and Filtration of Photographic Solutions.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc	50.540 38.836 3,545.000 1,090.600 (¹)	26.600 16.226 1,559.000 518.700 (¹)

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

(e) Subpart L—Precipitation and Filtration of Photographic Solutions Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of photo- graphic solutions	
Copper Zinc	23.070 17.730 1,618.000 497.800 (1)	12.140 7.406 711.400 236.800 (¹)

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

#### (f) Subpart L—Electrolytic Refining.

#### BPT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from electrolytic refining	
Copper Zinc	1.444 1.110 101.300 31.160	.760 .464 44.540 14.820

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

### (g) Subpart L—Furnace Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver roasted, smelted, or dried	
Copper Zinc	1.273 .978 89.310 27.470	.670 .409 39.260 13.070

#### BPT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

#### (h) Subpart L-Leaching.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching	
Copper	.164	.086
Zinc	.126 11.470	.053 5.040
Ammonia (as N)		
Total suspended solids	3.526	1.677
pH	(1)	(1)

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

(i) Subpart L—Leaching Wet Air Pollution Control and Precipitation of Nonphotographic Solutions Wet Air Pollution Control.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching or silver precipitated	
Copper	8.417 6.468 590.500 181.700 (¹)	4.430 2.703 259.600 86.390 (1)

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

(j) Subpart L—Precipitation and Filtration of Nonphotographic Solutions.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N) Total suspended solids PH	5.833 4.482 409.300 125.900 (1)	3.070 1.873 179.900 59.870 (1)

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

(k) Subpart L—Floor and Equipment Washdown.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver production	
Copper Zinc	.000 .000 .000 .000 (1)	.000 .000 .000 .000

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

[49 FR 8821, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984]

#### §421.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart L—Film Stripping.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from film stripping	
Copper	64.450 51.360 6,712.000	30.720 21.150 2,951.000

(b) Subpart L—Film Stripping Wet Air Pollution Control and Precipitation and Filtration of Film Stripping Solutions Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of film stripping solutions	
Copper	1.242 .990 129.300	.592 .408 56.840

(c) Subpart L—Precipitation and Filtration of Film Stripping Solutions.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N)	73.690 58.720 7,674.000	35.120 24.180 3,374.000

(d) Subpart L—Precipitation and Filtration of Photographic Solutions.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N)	34.048 27.132 3,545.000	16.226 11.172 1,559.000

(e) Subpart L—Precipitation and Filtration of Photographic Solutions Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silve from precipitation and filtration of photo graphic solutions	
Copper Zinc	15.540 12.380 1,618.000	7.406 5.099 711.400

#### (f) Subpart L—Electrolytic Refining.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from electrolytic refining	
Copper	.973	.464
Zinc	.775	.319
Ammonia (as N)	101.300	44.540

(g) Subpart L—Furnace Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver roasted, smelted, or dried	
Copper Zinc	.000 .000 .000	.000 .000 .000

#### (h) Subpart L-Leaching.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching	
Copper	.110 .088 11.470	.053 .036 5.040

(i) Subpart L—Leaching Wet Air Pollution Control and Precipitation of Nonphotographic Solutions Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching or silver precipitated	
CopperZincAmmonia (as N)	5.671 4.519 590.500	2.703 1.861 259.600

(j) Subpart L-Precipitation and Filtration of Nonphotographic Solutions.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N)	3.930 3.132 409.300	1.873 1.290 179.900

(k) Subpart L—Floor and Equipment tration of Film Stripping Solutions. Washdown.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver production	
Copper Zinc	.000 .000 .000	.000 .000 .000

#### §421.124 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Subpart L—Film Stripping.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from film stripping	
Copper Zinc Ammonia (as N)	64.450 51.360 6.712.000	30.720 21.150 2.951.000
Total suspended solidspH	755.300 (¹)	604.200

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

(b) Subpart L—Film Stripping Wet Air Pollution Control and Precipitation and Filtration of Film Stripping Solutions Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of film stripping solutions	
Copper	1.242	.592
Zinc	.990	.408
Ammonia (as N)	129.300	56.840
Total suspended solids	14.550	11.640
pH	(1)	(1)

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

(c) Subpart L-Precipitation and Fil-

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
CopperZinc	73.690 58.720	35.120 24.180
Ammonia (as N)	7,674.000	3,374.000
Total suspended solids	863.600	690.900
pH	(1)	(1)

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

### (d) Subpart L—Precipitation and Filtration of Photographic Solutions.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper	34.048 27.132 3,545.000 399.000 (1)	16.226 11.172 1,559.000 319.200 (1)

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

# (e) Subpart L—Precipitation and Filtration of Photographic Solutions Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of photo- graphic solutions	
Copper	15.540 12.380 1,618.000 182.100 (¹)	7.406 5.099 711.400 145.700 (1)

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

#### (f) Subpart L—Electrolytic Refining.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from electrolytic refining	
Copper	.973 .775	.464 .319
Ammonia (as N) Total suspended solids	101.300 11.400	44.540 9.120

#### NSPS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(¹)	(1)

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

### (g) Subpart L—Furnace Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver roasted, smelted, or dried	
Copper Zinc	.000 .000 .000 .000	.000 .000 .000 .000

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

#### (h) Subpart L—Leaching.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching	
Copper	.110	.053
Zinc	.088	.036
Ammonia (as N)	11.470	5.040
Total suspended solids	1.290	1.032
pH	(1)	(1)

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

(i) Subpart L—Leaching Wet Air Pollution Control and Precipitation of Nonphotographic Solutions Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching or silver precipitated	
Copper Zinc Ammonia (as N) Total suspended solids	5.671 4.519 590.500 66.450	2.703 1.861 259.600 53.160
pH	(1)	(1)

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

(j) Subpart L—Precipitation and Filtration of Nonphotograhic Solutions.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
CopperZinc	3.930 3.132	1.873 1.290
Ammonia (as N)	409.300	179.900
Total suspended solids	46.050	36.840
pH	(¹)	(1)

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

### (k) Subpart L—Floor and Equipment Washdown.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver production	
Copper	.000 .000 .000 .000 (1)	.000 .000 .000 .000 (1)

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

 $[49\ FR\ 8821,\ Mar.\ 8,\ 1984,\ as\ amended\ at\ 49\ FR\ 29795,\ July\ 24,\ 1984]$ 

### §421.125 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary silver process wastewater introduced into a POTW must not exceed the following values.

(a) Subpart L-Film Stripping.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from film stripping	
Copper	64.450 51.360 6,712.000	30.720 21.150 2,951.000

(b) Subpart L—Film Stripping Wet Air Pollution Control and Precipita-

tion and Filtration of Film Stripping Solutions Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of film stripping solutions	
CopperZinc	1.242 .990 129.300	.592 .408 56.840

(c) Subpart L—Precipitation and Filtration of Film Stripping Solutions.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc	73.690 58.720 7,674.000	35.120 24.180 3,374.000

(d) Subpart L—Precipitation and Filtration of Photographic Solutions.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N)	34.048 27.132 3,545.000	16.226 11.172 1,559.000

(e) Subpart L—Precipitation and Filtration of Photographic Solutions Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of photo- graphic solutions	
CopperZincAmmonia (as N)	15.540 12.380 1,618.000	7.406 5.099 711.400

(f) Subpart L—Electrolytic Refining.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from electrolytic refining	
Copper Zinc Ammonia (as N)	.973 .775 101.300	.464 .319 44.540

(g) Subpart L—Furnace Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver roasted, smelted, or dried	
Copper Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

(h) Subpart L-Leaching.

#### **PSES**

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of silver produced from leaching	
.110	.053
.088	.036
11.470	5.040
	mg/troy oun produced fro .110 .088

(i) Subpart L—Leaching Wet Air Pollution Control and Precipitation of Nonphotographic Solutions Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1	Maximum for monthly
	day	average
	mg/troy ounce of silver produced from leaching or silver precipitated	
Copper	5.671	2.703
Zinc	4.519	1.861
Ammonia (as N)	590.500	259.600

(j) Subpart L—Precipitation and Filtration of Nonphotographic Solutions.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N)	3.930 3.132 409.300	1.873 1.290 179.900

(k) Subpart L—Floor and Equipment Washdown.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver production	
Copper Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

### §421.126 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary silver process wastewater introduced into a POTW shall not exceed the following values:

(a) Subpart L—Film Stripping.

#### **PSNS**

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of silver from film stripping	
64.450 51.360	30.720 21.150 2.951.000
	mg/troy oun from film

(b) Subpart L—Film Stripping Wet Air Pollution Control and Precipitation and Filtration of Film Stripping Solutions Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of film stripping solutions	
Copper	1.242	.592
Zinc	.990	.408
Ammonia (as N)	129.300	56.840

(c) Subpart L—Precipitation and Filtration of Film Stripping Solutions.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper Zinc Ammonia (as N)	73.690 58.720 7,674.000	35.120 24.180 3,374.000

(d) Subpart L—Precipitation and Filtration of Photographic Solutions.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
CopperZinc	34.048 27.132 3,545.000	16.226 11.172 1,559.000

(e) Subpart L—Precipitation and Filtration of Photographic Solutions Wet Air Pollution Control.

#### PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from precipitation and filtration of photo- graphic solutions	
Copper	15.540 12.380	7.406 5.099
Ammonia (as N)	1,618.000	711.400

(f) Subpart L—Electrolytic Refining.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver from electrolytic refining	
Copper	.973	.464
Zinc	.775	.319
Ammonia (as N)	101.300	44.540

(g) Subpart L—Furnace Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver roasted, smelted or dried	
Copper Zinc	.000 .000 .000	.000 .000 .000

(h) Subpart L-Leaching.

#### **PSNS**

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of silver produced from leaching	
.110	.053
.088	.036
11.470	5.040
	mg/troy oun produced fro .110 .088

(i) Subpart L—Leaching Wet Air Pollution Control and Precipitation of Nonphotographic Solutions Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver produced from leaching or silver precipitated	
Copper Zinc	5.671 4.519 590.500	2.703 1.861 259.600

(j) Subpart L—Precipitation and Filtration of Nonphotographic Solutions.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver precipitated	
Copper	3.930 3.132 409.300	1.873 1.290 179.900

### (k) Subpart L—Floor and Equipment Washdown.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver production	
Copper Zinc Ammonia (as N)	.000 .000 .000	.000 .000 .000

[49 FR 8821, Mar. 8, 1984; 49 FR 26739, June 29, 1984]

#### §421.127 [Reserved]

#### Subpart M—Secondary Lead Subcategory

Source: 49 FR 8826, Mar. 8, 1984, unless otherwise noted.

### §421.130 Applicability: Description of the secondary lead subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of lead by secondary lead facilities.

#### §421.131 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.132 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of efflu-

ent reduction attainable by the application of the best practicable technology currently available:

#### (a) Subpart M—Battery Cracking

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	1.932	.862
Arsenic	1.407	.579
Lead	.283	.135
Zinc	.983	.411
Ammonia (as N)	.000	.000
Total suspended solids	27.600	13.130
pH	(1)	(¹)

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

# (b) Subpart M—Blast, Reverberatory, or Rotary Furnace Wet Air Pollution Control

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum Maximu for any 1 for month	
- One tank or pollutary property	day	average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	7.491	3.341
Arsenic	5.455	2.245
Lead	1.096	.522
Zinc	3.811	1.592
Ammonia (as N)	.000	.000
Total suspended solids	107.000	50.900
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

### (c) Subpart M—Kettle Wet Air Pollution Control

#### BPT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) of lead pro- duced from refining		
Antimony	.129 .094 .019 .066	.058 .039 .009	
Ammonia (as N) Total suspended solidspH	.000 1.845 (¹)	.000 .878 (1)	

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

### $\begin{array}{ccc} \mbox{(d)} & \mbox{Subpart} & \mbox{M-Lead} & \mbox{Paste} \\ \mbox{Desulfurization} & \end{array}$

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead proc- essed through desulfurization	
Antimony	.000	.000
Arsenic	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

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

## (e) Subpart M—Casting Contact Cooling

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead cast	
Antimony	.634	.283
Arsenic	.462	.190
Lead	.093	.044
Zinc	.323	.135
Ammonia (as N)	.000	.000
Total suspended solids	9.061	4.310
pH	(1)	(¹)

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

#### (f) Subpart M—Truck Wash.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) of lead pro- duced from smelting		
Antimony	.060 .044 .009 .031 .000 .861	.027 .018 .004 .013 .000 .410	

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

#### (g) Subpart M—Facility Washdown

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced from	f lead pro-
Antimony	.000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000

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

## (h) Subpart M-Battery Case Classification.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	ls per million lead scrap
Antimony	.000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000 .000

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

#### (i) Subpart M—Employee Handwash.

#### **BPT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o duced from	f lead pro-
Antimony	.077 .056	.035
Lead	.011	.005
Zinc	.039	.016
Ammonia (as N)	.000	.000
Total suspended solids	1.107	.527
pH	(1)	(1)

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

## (j) Subpart M—Employee Respirator Wash.

BPT EFFULENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony Arsenic Lead Zinc Ammonia (as N) Total suspended solids pH	.126 .092 .018 .064 .000 1.804	.056 .038 .009 .027 .000 .858 (¹)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

 $\left(k\right)$  Subpart M—Laundering of Uniforms.

**BPT EFFLUENT LIMITATIONS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony Arsenic Lead Zinc Ammonia (as N) Total suspended solids pH	.367 .268 .054 .187 .000 5.248	.164 .110 .026 .078 .000 2.496 (¹)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

 $[49\ FR\ 8826,\ Mar.\ 8,\ 1984,\ as\ amended\ at\ 49\ FR\ 29795,\ July\ 24,\ 1984]$ 

#### §421.133 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Subpart M—Battery Cracking.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	1.299	.579
Arsenic	.936	.384
Lead	.189	.087
Zinc	.687	.283
Ammonia (as N)	.000	.000

(b) Subpart M—Blast, Reverberatory, or Rotary Furnace Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	5.038 3.628 .731 2.662 0.000	2.245 1.488 .339 1.096 0.000

(c) Subpart M—Kettle Wet Air Pollution Control.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from refining	
Antimony	.087	.039
Arsenic	.063	.026
Lead	.013	.006
Zinc	.046	.019
Ammonia (as N)	.000	.000

(d) Subpart M—Lead Paste Desulfurization.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead proc- essed through desulfurization	
Antimony Arsenic Lead Zinc Ammonia (as N)	.000 .000 .000 .000	.000 .000 .000 .000

## (e) Subpart M—Casting Contact Cooling.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead cast	
Antimony	.042	.019
Arsenic	.031	.013
Lead	.006	.003
Zinc	.022	.009
Ammonia (as N)	.000	.000

### (f) Subpart M—Truck Wash.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony Arsenic	.041 .029 .006	.018 .012 .003
Zinc	.021	.009

#### (g) Subpart M-Facility Washdown.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000
Aminonia (as iv)	.000	.000

## (h) Subpart M-Battery Case Classification.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	.000	.000
Arsenic	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000

#### (i) Subpart M—Employee Handwash.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.052 .038 .008 .028 .000	.023 .015 .004 .011

## (j) Subpart M—Employee Respirator Wash.

#### **BAT EFFLUENT LIMITATIONS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony Arsenic Lead Zinc Ammonia (as N)	.085 .061 .012 .045	.038 .025 .006 .018

## (k) Subpart M—Laundering of Uniforms.

#### BAT EFFLUENT LIMITATIONS

Pollutant or pollutant property	Maximum for any 1	Maximum for monthly
	day	average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.247	.110
Arsenic	.178	.073
Lead	.036	.017

BAT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
ZincAmmonia (as N)	.131 .000	.054 .000

### § 421.134 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Subpart M—Battery Cracking.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	1.299 .936 .189 .687	.579 .384 .087 .283
Total suspended solidspH	10.100 (¹)	8.076 (¹)

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

(b) Subpart M—Blast, Reverberatory, or Rotary Furnace Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	5.038	2.245
Antimony	1	
Arsenic	3.628	1.488
Lead	.731	.339
Zinc	2.662	1.096
Ammonia (as N)	0.000	0.000
Total suspended solids	39.150	31.320
pH	(1)	(1)

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

(c) Subpart M—Kettle Wet Air Pollution Control.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from refining	
Antimony	.000	.000
Arsenic	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

## $\begin{array}{ll} \mbox{(d)} & \mbox{Subpart} & \mbox{M-Lead} & \mbox{Paste} \\ \mbox{Desulfurization.} & \end{array}$

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of lead proc- essed through desulfurization	
Antimony	.000	.000
Arsenic	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
pH	( <sup>1</sup> )	(¹)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

## (e) Subpart M—Casting Contact Cooling.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead cast	
Antimony	.042 .031 .006 .022 .000	.019 .013 .003 .009
Total suspended solidspH	.330 (¹)	.264 (¹)

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

<sup>(</sup>f) Subpart M—Truck Wash.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.041	.018
Arsenic	.029	.012
Lead	.006	.003
Zinc	.021	.009
Ammonia (as N)	.000	.000
Total suspended solids	.315	.252
pH	(1)	(1)

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

#### (g) Subpart M—Facility Washdown.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.000	.000
	.000	.000
Arsenic		
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000
Total suspended solids	.000	.000
pH	(1)	(1)

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

## (h) Subpart M—Battery Case Classification.

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	s per million lead scrap
Antimony	.000 .000 .000 .000 .000 .000	.000 .000 .000 .000 .000 .000

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

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.052	.023
Arsenic	.038	.015
Lead	.008	.004
Zinc	.028	.011
Ammonia (as N)	.000	.000
Total suspended solids	.405	.324
pH	(1)	(1)

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

## (j) Subpart M—Employee Respirator Wash.

#### **NSPS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.085	.038
Lead	.012	.006
Zinc	.045	.018
Ammonia (as N)	.000	.000
Total suspended solids	.660	.528
pH	(1)	(1)

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

## $\begin{tabular}{ll} (k) & Subpart & M-Laundering & of & Uniforms. \end{tabular}$

#### NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millio pounds) of lead pro duced from smelting	
Antimony	.247 .178 .036 .131 .000 1.920	.110 .073 .017 .054 .000 1.536

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

[49 FR 8826, Mar. 8, 1984, as amended at 49 FR 29795, July 24, 1984]

<sup>(</sup>i) Subpart M—Employee Handwash.

## § 421.135 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary lead process wastewater introduced into a POTW shall not exceed the following values:

#### (a) Subpart M—Battery Cracking.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	s per million lead scrap
Antimony Arsenic Lead Zinc Ammonia (as N)	1.299 .936 .189 .687	.579 .384 .087 .283

# (b) Subpart M—Blast, Reverberatory, or Rotary Furnace Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony Arsenic Lead Zinc Ammonia (as N)	5.038 3.628 .731 2.662 .000	2.245 1.488 .339 1.096

## (c) Subpart M—Kettle Wet Air Pollution Control.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from refining	
Antimony	.087 .063	.039 .026
Lead	.013	.006

#### PSES—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
ZincAmmonia (as N)	.046 .000	.019 .000

## (d) Subpart M—Lead Paste Desulfurization.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead proc- essed through desulfurization	
Antimony	.000 .000 .000 .000	.000 .000 .000 .000

### (e) Subpart M—Casting Contact Cooling

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead cast	
Animony	.042	.019
Arsenic	.031	.013
Lead	.006	.003
Zinc	.022	.009
Ammonia (as N)	.000	.000

#### (f) Subpart M—Truck Wash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.041	.018
Lead	.006	.003
Zinc	.021	.009
Ammonia (as N)	.000	.000

<sup>(</sup>g) Subpart M-Facility Washdown.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.000 .000 .000 .000	.000 .000 .000 .000

## (h) Subpart M—Battery Case Classification.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	.000 .000 .000 .000	.000 .000 .000 .000

#### (i) Subpart M—Employee Handwash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.052 .038 .008 .028 .000	.023 .015 .004 .011

## (j) Subpart M—Employee Respirator Wash.

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.085 .061 .012 .045	.038 .025 .006 .018

 $(k)\ Subpart\ M-Laundering\ of\ Uniforms.$ 

#### **PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.247 .178 .036 .131	.110 .073 .017 .054

### §421.136 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary lead process wastewater introduced into a POTW shall not exceed the following values:

#### (a) Subpart M—Battery Cracking.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	1.299 .936 .189 .687	.579 .384 .087 .283

(b) Subpart M—Blast, Reverberatory, or Rotary Furnace Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	5.038	2.245
Arsenic	3.628	1.488
Lead	.731	.339
Zinc	2.662	1.096

#### PSNS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	.000	.000

## (c) Subpart M—Kettle Wet Air Pollution Control.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from refining	
Antimony	.000	.000
Arsenic	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000

## $\begin{array}{ccc} \mbox{(d)} & \mbox{Subpart} & \mbox{M-Lead} & \mbox{Paste} \\ \mbox{Desulfurization.} & \end{array}$

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead proc- essed through desulfurization	
Antimony	.000	.000
Arsenic	.000	.000
Lead	.000	.000
Zinc	.000	.000
Ammonia (as N)	.000	.000

## (e) Subpart M—Casting Contact Cooling.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead cast	
Antimony	.042	.019
Arsenic	.031	.013
Lead	.006	.003
Zinc	.022	.009
Ammonia (as N)	.000	.000

#### (f) Subpart M—Truck Wash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.041	.018
Arsenic	.029	.012
Lead	.006	.003
Zinc	.021	.009
Ammonia (as N)	.000	.000

#### (g) Subpart M—Facility Washdown.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.000 .000 .000 .000	.000 .000 .000 .000

## (h) Subpart M-Battery Case Classification.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead scrap produced	
Antimony	.000 .000 .000 .000	.000 .000 .000 .000

#### (i) Subpart M—Employee Handwash.

#### **PSNS**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.052	.023
Arsenic	.038	.015
Lead	.008	.004
Zinc	.028	.011
Ammonia (as N)	.000	.000

(j) Subpart M—Employee Respirator Wash.

**PSNS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.085 .061 .012 .045	.038 .025 .006 .018

(k) Subpart M—Laundering of Uniforms.

**PSNS** 

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of lead pro- duced from smelting	
Antimony	.247 .178 .036 .131	.110 .073 .017 .054

#### §421.137 [Reserved]

#### Subpart N—Primary Antimony Subcategory

Source:  $50 \ FR \ 38345$ , Sept. 20, 1985, unless otherwise noted.

### §421.140 Applicability: Description of the primary antimony subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of antimony at primary antimony facilities.

#### §421.141 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §421.142 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

(a) Sodium Antimonate Autoclave Wastewater.

BPT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony con- tained in sodium antimonate product	
Antimony	44.840	20.000
Arsenic	32.650	14.530
Mercury	3.906	1.562
Total suspended solids	640.600	304.700
pH	(1)	( <sup>1</sup> )

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

#### (b) Fouled anolyte.

BPT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony metal produced by electrowinning	
Antimony	44.840	20.000
Arsenic	32.650	14.530
Mercury	3.906	1.562
Total suspended solids	640.600	304.700
pH	(1)	(1)

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

#### (c) Cathode Antimony Wash Water.

BPT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		of antimony oduced by
Antimony	89.680 65.310 7.812 1,281.000	40.000 29.060 3.125 609.300
pH	(1)	(1)

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

#### §421.143 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Sodium Antimonate Autoclave Wastewater.

BAT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony con- tained in sodium antimo- nate product	
Antimony Arsenic Mercury	30.150 21.720 2.344	13.440 9.687 0.937

#### (b) Fouled Anolyte.

BAT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg pounds per millior pounds of antimony meta produced by electrowinning	
Antimony	30.150 21.720	13.440 9.687

### BAT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Mercury	2.344	0.937

#### (c) Cathode Antimony Wash Water

### BAT LIMITATIONS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant of pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony metal produced by electrowinning	
Antimony Arsenic Mercury	60.310 43.430 4.687	26.870 19.370 1.875

### § 421.144 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Sodium Antimonate Autoclave Wastewater.

### NSPS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony contained in sodium antimonate product	
Antimony Arsenic Mercury Total suspended solids pH	30.150 21.720 2.344 234.400 (¹)	13.440 9.687 0.937 187.500 (¹)

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

#### (b) Fouled Anolyte.

## NSPS FOR THE PRIMARY ANTIMONY SUBCATEGORY

mg/kg (pound pounds) o metal pro electrowinni	of antimony oduced by
30.150	13.440 9.687
n	pounds) o metal pro electrowinni

### NSPS FOR THE PRIMARY ANTIMONY SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Mercury Total suspended solidspH	2.344 234.400	0.937 187.500

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

#### (c) Cathode Antimony Wash Water.

### NSPS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony metal produced by electrowinning	
Antimony	60.310 43.430 4.687	26.870 19.370 1.875
Total suspended solidspH	468.700 (¹)	375.000 (¹)

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

#### §421.145 [Reserved]

### §421.146 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary antimony process wastewater introduced into a POTW shall not exceed the following values:

(a) Sodium Antimonate Autoclave Wastewater.

PSNS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony con- tained in sodium antimonate product	
Antimony	30.150 21.720 2.344	13.440 9.687 0.937

(b) Fouled Anolyte.

### PSNS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of antimony metal produced by electrowinning	
Antimony	30.150 21.720 2.344	13.440 9.687 0.937

#### (c) Cathode Antimony Washwater.

### PSNS FOR THE PRIMARY ANTIMONY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) c metal pro electrowinnir	of antimony oduced by
Antimony	60.310 43.430 4.687	26.870 19.370 1.875

#### §421.147 [Reserved]

#### Subpart O—Primary Beryllium Subcategory

Source:  $50 \ \mathrm{FR} \ 38346$ , Sept. 20, 1985, unless otherwise noted.

### §421.150 Applicability: Description of the primary beryllium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of beryllium by primary beryllium facilities processing beryllium ore concentrates or beryllium hydroxide raw materials.

#### §421.151 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.152 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point

source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Solvent Extraction Raffinate from Bertrandite Ore.

BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium car- bonate produced from bertrandite ore as beryl- lium	
Beryllium	2,763.000	1.235.000
Chromium (total)	988.200	404.300
Copper	4,267.000	2,246.000
Cyanide (total)	651.300	269.500
Ammonia (as N)	299,400.000	131,600.000
Fluoride	78,610.000	44,700.000
Total suspended solids	92,090.000	43,800.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.5 to 10.0 at all times

## (b) Solvent Extraction Raffinate from Beryl Ore.

BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium car- bonate produced from beryl ore as beryllium	
D di	070.0	404.0
Beryllium	270.6	121.0
Chromium (total)	96.8	39.6
Copper	418.0	220.0
Cyanide (total)	63.8	26.4
Ammonia (as N)	29,330.0	12,890.0
Fluoride	7,700.0	4,378.0
Total suspended solids	9,020.0	4,290.0
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny l}}$  Within the range of 7.5 to 10.0 at all times.

#### (c) Beryllium Carbonate Filtrate.

BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium car- bonate produced as beryl- lium	
Beryllium	263.800 94.380	118.000 38.610
Copper	407.600	214.500
Cyanide (total)	62.210	25.740
Ammonia (as N)	28,590.000	12,570.000
Fluoride	7,508.000	4,269.000
Total suspended	8,795.000	4,183.000
pH	(1)	(1)

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

#### (d) Beryllium Hydroxide Filtrate.

## BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hy droxide produced as be ryllium	
Beryllium	167.280 59.840 258.400 39.440 18128.800 4760.000 5576.000	74.800 24.480 136.000 16.320 7969.600 2706.400 2652.000 (¹)

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

## (e) Beryllium Oxide Calcining Furnace Wet Air Pollution Control. $\ \ \,$

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of b produced	s per million eryllium oxide
Beryllium	324.000	145.000
Chromium (total)	116.000 501.000	47.470 263.700
Copper	76.470	31.640
Cyanide (total)		
Ammonia (as N)	35,150.000	15,450.000
Fluoride	9,230.000	5,248.000

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Total suspended solidspH	10,810.000 (¹)	5,142.000 (¹)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

#### (f) Beryllium hydroxide supernatant.

## BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hydroxide produced from scrap and resi- dues as beryllium	
Beryllium	282.9	126.5
Chromium (total)	101.2	41.4
Copper	437.0	230.0
Cyanide (total)	66.7	27.6
Ammonia (as N)	30,660.0	13,480.0
Fluoride	160,308.0	71,201.0
Total suspended solids	9,430.0	4,485.0
pH	(1)	(1)

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

#### (g) Process water.

## BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of pebbles pro	of beryllium
Beryllium	215.00	96.14
Chromium (total)	76.91	31.46
Copper	332.10	174.80
Cyanide (total)	50.69	20.98
Ammonia (as N)	23,300.00	10,240.00
Fluoride	6,118.00	3,479.00
Total suspended solids	7,167.00	3,409.00
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{ Within the range of 7.5 to 10.0 at all times.}$ 

#### (h) Fluoride furnace scrubber.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o pebbles pro	of beryllium
Beryllium	0.000 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000

Within the range of 7.5 to 10.0 at all times.

#### (i) Chip treatment wastewater.

## BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of scrap chips	of beryllium
Beryllium	9.533 3.410 14.730 2.248 1,033.000 271.300 317.800 (¹)	4.263 1.395 7.750 0.930 454.200 154.200 151.100

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

## (j) Beryllium Pebble Plant Area Vent Wet Air Pollution Control.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) c pebbles pro	of beryllium
Beryllium	0.000 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

#### (k) Beryl Ore Gangue Dewatering.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds) of bessed	s per million eryl ore proc-
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride Total Suspended Solids pH	1.283 0.459 1.982 0.302 139.032 36.505 42.763	0.574 0.188 1.043 0.125 61.120 20.756 20.339

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

## (l) Bertrandite Ore Gangue Dewatering.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/kg (pounds) of b	s per million ertrandite ore
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride Total Suspended Solids pH	3.279 1.173 5.064 0.773 355.245 93.275 109.265	1.466 0.480 2.665 0.320 156.169 53.034 51.968

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

#### (m) Beryl Ore Processing.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of b essed	s per million eryl ore proc-
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride Total Suspended Solids	8.983 3.213 13.876 2.118 973.490 255.605 299.423	4.017 1.315 7.303 0.876 427.956 145.330 142.409
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

## (n) Aluminum Iron Sludge (AIS) Area Wastewater.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of total beryllium carbonate produced as beryllium	
Daniellina	575.040	057.400
Beryllium	575.640	257.400
Chromium (Total)	205.920	84.240
Copper	889.200	468.000
Cyanide (Total)	135.720	56.160
Ammonia (as N)	62384.400	27424.800
Fluoride	16380.000	9313.200
Total Suspended Solids	19188.000	9126.000
pH	(¹)	(¹)

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

### (o) Bertrandite Ore Leaching Scrubber.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of ber proce	
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride Total Suspended Solids pH	1.859 0.665 2.871 0.438 201.416 52.885 61.951	0.831 0.272 1.511 0.181 88.545 30.069 29.465

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

## (p) Bertrandite Ore Countercurrent and Decantation (CCD) Scrubber.

### BPT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of ber proce	
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride Total Suspended Solids pH	0.124 0.044 0.192 0.029 13.463 3.535 4.141	0.056 0.018 0.101 0.012 5.919 2.010 1.970

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

[50 FR 38346, Sept. 20, 1985, as amended at 55 FR 31697, Aug. 3, 1990; 55 FR 36932, Sept. 7, 1990]

#### §421.153 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Solvent extraction raffinate from bertrandite ore.

BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium carbonate produced from bertrandite ore as beryllium	
Beryllium	1,842.000 831.000 2,875.000 449.200 299,400.000 78,610.000	831.000 336.900 1,370.000 179.700 131,600.000 44,700.000

(b) Solvent extraction raffinate from beryl ore.  $\label{eq:constraint}$ 

BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium carbonate produced from beryl ore as beryl- lium	
Beryllium	180.4 81.4 281.6 44.0 29,330.0 7,700.0	81.4 33.0 134.2 17.6 12,890.0 4,378.0

(c) Beryllium carbonate filtrate.

BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium carbonate produced as beryllium	
Beryllium	175.900	79.370
Chromium (total)	79.370	32.180
Copper	274.600	130.800
Cyanide (total)	42.900	17.160
Ammonia (as N)	28,590.000	12,570.000
Fluoride	7,508.000	4,269.000

#### (d) Beryllium Hydroxide Filtrate.

BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hydroxide produced as beryllium	
Populium	111.520	50.320
Beryllium		
Chromium (Total)	50.320	20.400
Copper	174.080	82.960
Cyanide (Total)	27.200	10.880
Ammonia (as N)	18128.800	7969.600
Fluoride	4760.000	2706.400

## (e) Beryllium oxide calcining furnace wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium oxide produced	
Beryllium	216.20 97.57 337.50 52.74 35,150.00	97.57 39.56 160.90 21.10 15,450.00
Fluoride	9,230.00	5,248.00

(f) Beryllium hydroxide supernatant.

### BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hydroxide produced from scrap and resi- dues as beryllium	
Beryllium	188.6	85.1
Chromium (total)	85.1	34.5
Copper	294.4	140.3
Cyanide (total)	46.0	18.4
Ammonia (as N)	30,660.0	13,480.0
Fluoride	160,308.0	71,201.0

#### (g) Process water.

## BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium pebbles produced	
Beryllium	143.30	64.68
Chromium (total)	64.68	26.22
Copper	223.70	106.60
Cyanide (total)	34.96	13.98
Ammonia (as N)	23,300.00	10,240.00
Fluoride	6,118.00	3,479.00

#### (h) Fluoride furnace scrubber.

## BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day Maximum average	
	mg/kg (pounds per million pounds) of beryllium pebbles produced	
Beryllium	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000

#### (i) Chip treatment wastewater.

### BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of beryllium scrap chips treated	
Beryllium	6.355	2.868
Chromium (total)	2.868	1.163
Copper	9.920	4.728
Cyanide (total)	1.550	0.620
Ammonia (as N)	1,033.000	454.200
Fluoride	271.300	154.200

## (j) Beryllium pebble plant area vent wet air pollution control.

## BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium pebbles produced	
Beryllium	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000

#### (k) Beryl Ore Gangue Dewatering.

## BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryl ore processed	
Beryllium	0.855	0.386
Chromium (Total)	0.386	0.156
Copper	1.335	0.636
Cyanide (Total)	0.209	0.083
Ammonia (as N)	139.032	61.120
Fluoride	36.505	20.756

## $\begin{array}{ccc} \hbox{(l)} & Bertrandite & Ore & Gangue \\ Dewatering. \end{array}$

### BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of bertrandite ore processed	
Beryllium	2.185 0.986 3.411	0.986 0.400 1.626
Cyanide (Total)	0.533 355.245 93.275	0.213 156.169 53.034

#### (m) Beryl Ore Processing.

## BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 for monthl day average	
	mg/kg (pounds per million pounds) of beryl ore processed	
Beryllium	5.988 2.702	2.702 1.095
Cyanide (Total)	9.348 1.461	4.455 0.584
Ammonia (as N)	973.490	427.956
Fluoride	255.605	145.330

## (n) Alumium Iron Sludge (AIS) Area Wastewater.

BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of total beryl- lium carbonate pro- duced as beryllium	
Beryllium	383.760 173.160	173.160 70.200
Copper	599.040	285.480
Cyanide (Total)	93.600	37.440
Ammonia (as N)	62384.400	27424.800
Fluoride	16380.000	9313.200

## (o) Bertrandite Ore Leaching Scrubber.

## BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of bertrandite ore processed	
Beryllium	1.239 0.559 1.934 0.302 201.416 52.885	0.559 0.227 0.922 0.121 88.545 30.069

## (p) Bertrandite Ore Countercurrent and Decantation (CCD) Scrubber.

### BAT LIMITATIONS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 for month day average	
	mg/kg of bertrandite ore processed	
Beryllium	0.083 0.037 0.129 0.020 13.463 3.535	0.037 0.015 0.062 0.008 5.919 2.010

[50 FR 38346, Sept. 20, 1985, as amended at 55 FR 31698, Aug. 3, 1990]

### §421.154 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Solvent extraction raffinate from bertrandite ore.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds million pounds) of beryllium carbonate produced from bertrandite ore as beryllium	
Beryllium	1.842.000	831.000
Chromium (total)	831.000	336.900
Copper	2,875.000	1,370.000
Cyanide (total)	449.200	179.700
Ammonia (as N)	299,400.000	131,600.000
Fluoride	78,610.000	44,700.000
Total Suspended solids	33,690.000	26,950.000
pH	(1)	(1)

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

#### 40 CFR Ch. I (7-1-98 Edition)

#### § 421.154

## (b) Solvent extraction raffinate from beryl ore.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	carbonate	ls per million of beryllium produced ore as beryl-
Beryllium	180.4	81.4
Chromium (total)	81.4	33.0
Copper	281.6	134.2
Cyanide (total)	44.0	17.6
Ammonia (as N)	29,330.0	12,890.0
Fluoride	7,700.0	4,378.0
Total Suspended solids	3,300.0	2,640.0
pH	(1)	(1)

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

#### (c) Beryllium carbonate filtrate.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of beryllium produced as
Beryllium Chromium (total) Copper Cyanide (total) Ammonia (as N) Fluoride Total Suspended solids	175.900 79.370 274.600 42.900 28,590.000 7,508.000 3,218.000	79.370 32.180 130.800 17.160 12,579.000 4,269.000 2,574.000
pH	(1)	(1)

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

#### (d) Beryllium hydroxide filtrate.

### NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hydroxide produced as beryllium	
Beryllium	111.520 50.320 174.080 27.200	50.320 20.400 82.960 10.880

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	18128.800 4760.000 2040.000	7969.600 2706.400 1632.000
pH	(1)	(1)

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

## (e) Beryllium oxide calcining furnace wet air pollution control.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o oxide produ	of beryllium
Beryllium	216.20 95.57 337.50 52.74	97.57 39.56 160.90 21.10
Ammonia (as N)	35,150.00 9,230.00 3,956.00	15,450.00 5,248.00 3,164.00
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{ Within the range of 7.5 to 10.0 at all times.}$ 

#### (f) Beryllium hydroxide supernatant.

### NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	hydroxide	produced and resi-
Beryllium	188.6	85.1
Chromium (total)	85.1	34.5
Copper	294.4	140.3
Cyanide (total)	46.0	18.4
Ammonia (as N)	30,660.0	13,480.0
Fluoride	160,308.0	71,201.0
Total Suspended solids	3,450.0	2,760.0
pH	(1)	(1)

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

#### (g) Process water.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of pebbles pro	of beryllium
B #	440.00	24.00
Beryllium	143.30	64.68
Chromium (total)	64.68	26.22
Copper	223.70	106.60
Cyanide (total)	34.96	13.98
Ammonia (as N)	23,300.00	10,240.00
Fluoride	6,118.00	3,479.00
Total suspended solids	2,622.00	2,098.00
pH	(1)	(1)

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

#### (h) Fluoride furnance scrubber.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of pebbles pro	of beryllium
D. a. William	0.000	0.000
Beryllium	0.000	0.000
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Cyanide (total)	0.000	0.000
Ammonia (as N)	0.000	0.000
Fluoride	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{ Within the range of 7.5 to 10.0 at all times.}$ 

#### (i) Chip treatment wastewater.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day mg/kg (pound pounds) o scrap chips	of beryllium
n	pounds) o	of beryllium
Beryllium	6.355 2.868 9.920 1.550 1,033.000 271.300 116.300	2.868 1.163 4.728 0.620 454.200 154.200 93.000

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

## $(j) \ Beryllium \ pebble \ plant \ area \ vent \ wet \ air \ pollution \ control.$

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of pebbles pro	of beryllium
Beryllium	0.000 0.000 0.000	0.000 0.000 0.000
Cyanide (total) Ammonia (as N)	0.000 0.000	0.000 0.000
Fluoride  Total suspended solids	0.000	0.000
pH	(1)	(1)

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

#### (k) Beryl Ore Gangue Dewatering.

#### NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o processed	ls per million f beryl ore
Beryllium	0.855 0.386 1.335 0.209 139.032 36.505 15.645	0.386 0.156 0.636 0.083 61.120 20.756 12.516
pH	15.645 (1)	12.516

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

## (l) Bertrandite Ore Gangue Dewatering.

## NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of ore process	bertrandite
Beryllium	2.185	0.986
Chromium (Total)	0.986	0.400
Copper	3.411	1.626
Cyanide (Total)	0.533	0.213
Ammonia (as N)	355.245	156.169
Fluoride	93.275	53.034
Total Suspended Solids	39.975	31.980
pH	(1)	(1)

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

#### (m) Beryl Ore Processing.

§ 421.155

NSPS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o processed	s per million f beryl ore
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride Total Suspended Solids pH	5.988 2.702 9.348 1.461 973.490 255.605 109.545	2.702 1.095 4.455 0.584 427.956 145.330 87.636 (1)

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

### (n) Aluminum Iron Sludge (AIS) Area Wastewater.

NSPS for the Primary Beryllium Subcategory

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of total beryl- lium carbonate pro- duced as beryllium	
Pondlium	383.760	173,160
Beryllium		
Chromium (Total)	173.160	70.200
Copper	599.040	285.480
Cyanide (Total)	93.600	37.440
Ammonia (as N)	62384.400	27424.800
Fluoride	16380.000	9313.200
Total Suspended Solids	7020.000	5616.000
pH	(1)	(1)

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

### (o) Bertrandite Ore Leaching Scrubber.

NSPS for the Primary Beryllium Subcategory

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of ber proce	
Beryllium	1.239 0.559 1.934 0.302 201.416 52.885 22.665	0.559 0.227 0.922 0.121 88.545 30.069 18.132

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

NSPS for the Primary Beryllium Subcategory

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of ber proce	
Beryllium	0.083 0.037 0.129 0.020	0.037 0.015 0.062 0.008
Ammonia (as N)	13.463 3.535	5.919 2.010
Total Suspended SolidspH	1.515 (¹)	1.212

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

 $[50~{\rm FR}~38346,~{\rm Sept.}~20,~1985,~{\rm as}~{\rm amended}~{\rm at}~55~{\rm FR}~31699,~{\rm Aug.}~3,~1990]$ 

#### §421.155 [Reserved]

### §421.156 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary beryllium process wastewater introduced into a POTW shall not exceed the following values:

(a) Solvent extraction raffinate from bertrandite ore.

PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium carbonate produced from bertrandite ore as beryllium	
Beryllium	1,842.000	831.000
Chromium (total)	831.000	336.900
Copper	2,875.000	1,370.000
Cyanide (total)	449.200	179.700
Ammonia (as N)	299,400.000	131.600.000
Fluoride	78,610.000	44,700.000

(b) Solvent extraction raffinate from beryl ore.

<sup>(</sup>p) Bertrandite Ore Countercurrent and Decantation (CCD) Scrubber.

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of beryllium carbonate produced from beryl ore as beryl- lium	
180.4	81.4
81.4	33.0
281.6	134.2
44.0	17.6
29.330.0	12,890.0
7,700.0	4,378.0
	mg/kg (pound pounds) carbonate from beryl lium  180.4 81.4 281.6 44.0 29.330.0

#### (c) Beryllium carbonate filtrate.

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium carbonate produced as beryllium	
Beryllium	175.900	79.370
Chromium (total)	79.370	32.180
Copper	274.600	130.800
Cyanide (total)	42.900	17.160
Ammonia (as N)	28,590.000	12,570.000
Fluoride	7,508.000	4,269,000

#### $\hbox{(d) Beryllium Hydroxide Filtrate}.\\$

#### NSPS for the Primary Beryllium Subcategory

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hydroxide produced as beryllium	
Beryllium	111.510 50.320 174.080 27.200 18128.800	50.320 20.400 82.960 10.880 7969.600
Fluoride	4760.000	2706.400

## (e) Beryllium oxide calcining furnace wet air pollution control.

#### § 421.156

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) c oxide produ	of beryllium
Beryllium	216.20	97.57
Chromium (total)	97.57	39.56
Copper	337.50	160.90
Cyanide (total)	52.74	21.10
Ammonia (as N)	35,150.00	15,450.00
Fluoride	9,230.00	5,248.00

#### (f) Beryllium hydroxide supernatant

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryllium hydroxide produced from scrap and resi- dues as beryllium	
Beryllium	188.6	85.1
Chromium (total)	85.1	34.5
Copper	294.4	140.3
Cyanide (total)	46.0	18.4
Ammonia (as N)	30,660.0	13,480.0
Flouride	160,308.0	71,201.0

#### (g) Process water.

### PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg pounds per million pounds of beryllium pebbles produced	
Beryllium	143.30	64.68
Chromium (total)	64.68	26.22
Copper	223.70	106.60
Cyanide (total)	34.96	13.98
Ammonia (as N)	23,300.00	10,240.00
Fluoride	6,118.00	3,479.00

#### (h) Fluoride furnace scrubber.

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg pounds per million pounds of beryllium pebbles produced	
Beryllium	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000

#### (i) Chip treatment wastewater.

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg pounds per million pounds of beryllium scrap chips treated	
Beryllium	6.355	2.868
Chromium (total)	2.868	1.163
Copper	9.920	4.728
Cyanide (total)	1.550	0.620
Ammonia (as N)	1,033.000	454.200
Fluoride	271.300	154.200

## (j) Beryllium pebble plant area vent wet air pollution control

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg pounds per million pounds of beryllium pebbles produced	
Beryllium Chromium (total) Copper Cyanide (total) Ammonia (as N) Fluoride	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000

#### (k) Beryl Ore Gangue Dewatering.

#### 40 CFR Ch. I (7-1-98 Edition)

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of beryl ore processed	
Beryllium	0.855 0.386 1.335 0.209 139.032 36.505	0.386 0.156 0.636 0.083 61.120 20.756

## (l) Bertrandite Ore Gangue Dewatering.

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of bertrandite ore processed	
Beryllium	2.185 0.986 3.411 0.533 355.245 93.275	0.986 0.400 1.626 0.213 156.169 53.034

#### (m) Beryl Ore Processing.

## PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of beryl ore processed	
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Flouride	5.988 2.702 9.348 1.461 973.490 255.605	2.702 1.095 4.455 0.584 427.956 145.330

## (n) Aluminum Iron Sludge (AIS) Area Wastewater.

### PSNS FOR THE PRIMARY BERRYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of total beryl- lium carbonate pro- duced as beryllium	
Beryllium	383.760	173.160
Chromium (Total)	173.160	70.200
Copper	599.040	285.480
Cyanide (Total)	93.600	37.440
Ammonia (as N)	62384.400	27424.800
Fluoride	16380.000	9313.200

(o) Bertrandite Ore Leaching Scrubber.

PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of bertrandite ore processed	
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride	1.239 0.559 1.934 0.302 201.416 52.885	0.559 0.227 0.922 0.121 88.545 30.069

(p) Bertrandite Ore Countercurrent and Decantation (CCD) Scrubber.

PSNS FOR THE PRIMARY BERYLLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg of ber proce	
Beryllium Chromium (Total) Copper Cyanide (Total) Ammonia (as N) Fluoride	0.083 0.037 0.129 0.020 13.463 3.535	0.037 0.015 0.062 0.008 5.919 2.010

[50 FR 38346, Sept. 20, 1985, as amended at 55 FR 31700, Aug. 3, 1990]

#### §421.157 [Reserved]

#### Subpart P—Primary and Secondary Germanium and Gallium Subcategory

Source:  $50 \ FR \ 38350$ , Sept. 20, 1985, unless otherwise noted.

#### §421.180 Applicability: Description of the primary and secondary germanium and gallium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of germanium or gallium from primary and secondary germanium and gallium facilities.

#### §421.181 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Still liquor.

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic Lead	131.700 26.460 91.980 2,205.000 2,583.000	58.590 12.600 38.430 1,254.000 1,229.000
pH	(1)	(1)

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

(b) Chlorinator wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	27.530	12.250
Lead	5.531	2.634
Zinc	19.230	8.034
Fluoride	461.000	262.100
Total suspended solids	540.000	256.800
pH	(1)	(1)

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

#### (c) Germanium hydrolysis filtrate.

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium hydrolyzed	
Arsenic Lead Zinc Fluoride Total suspended solids PH	39.440 7.925 27.550 660.500 773.700 (¹)	17.550 3.774 11.510 375.500 368.000 (¹)

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

#### (d) Acid wash and rinse water.

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium washed	
Arsenic Lead Zinc Fluoride Total suspended solids pH	325.500 65.400 227.400 5,450.000 6,385.000 (¹)	144.800 31.140 94.990 3,099.000 3,037.000 (¹)

 $<sup>^{\</sup>mbox{\tiny l}}$  Within the range of 7.5 to 10.0 at all times.

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of gallium hydrolyzed	
Arsenic	70.450	31.350
Lead	14.160	6.742
Zinc	49.220	20.560
Fluoride	1,180.000	670.800
Total suspended solids	1,382.000	657.300
pH	(1)	1)

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

#### (f) Solvent extraction raffinate.

#### BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of gallium pro- duced by solvent ex- traction	
Arsenic	39.330	17.500
Lead	7.904	3.764
Zinc	27.480	11.480
Fluoride	658.700	374.500
Total suspended solids	771.600	367.000
pH	(1)	(1)

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

#### § 421.183 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Still liquor.

<sup>(</sup>e) Gallium hydrolysis filtrate.

BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	131.700	58.590
Lead	26.460	12.600
Zinc	91.980	38.430
Fluoride	2,205.000	1,254.000

### (b) Chlorinator wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	27.530	12.250
Lead	5.531	2.634
Zinc	19.230	8.034
Fluoride	461.000	262.100

#### (c) Germanium hydrolysis filtrate.

BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium hydrolyzed	
Arsenic	39.440	17.550
Lead	7.925	3.774
Zinc	27.550	11.510
Fluoride	660.500	375.500

#### (d) Acid wash and rinse water.

BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

§ 421.184

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium washed	
Arsenic	325.50	144.80
Lead	65.40	31.14
Zinc	227.40	94.99
Fluoride	5,450.00	3,099.00

#### (e) Gallium hydrolysis filtrate.

#### BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium hydrolyzed	
Arsenic	70.450	31.350
Lead	14.160	6.742
Zinc	49.220	20.560
Fluoride	1,180.000	670.800

#### (f) Solvent extraction raffinate.

#### BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY GERMANIUM AND GALLIUM SUB-CATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of gallium pro- duced by solvent ex- traction	
Arsenic	39.330	17.500
Lead	7.904	3.764
Zinc	27.480	11.480
Fluoride	658.700	374.500

### §421.184 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Still liquor.

### NSPS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	131.70 26.46	58.59 12.60
Zinc	91.98	38.43
Fluoride	2,205.00	1,254.00
Total suspended solids	2,583.00	1,229.00
pH	(1)	(1)

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

### (b) Chlorinator wet air pollution control.

## NSPS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	27.530	12.250
Lead	5.531	2.634
Zinc	19.230	8.034
Fluoride	461.000	262.100
Total suspended solids	540.000	256.800
pH	(1)	(1)

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

#### (c) Germanium hydrolysis filtrate.

### NSPS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for 1 one day	Maximum for monthly average
	mg/kg pounds per million pounds) of germanium hydrolyzed	
Arsenic	39.440	17.550
Lead	7.925	3.774
Zinc	27.550	11.510
Fluoride	660.500	375.500
Total suspended solids	773.700	368.000
pH	(1)	(1)

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

#### (d) Acid wash and rinse water.

### NSPS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of germanium washed	
325.50 65.40 227.40 5,450.00 6,385.00	144.80 31.14 94.99 3,099.00 3,037.00
	for any 1 day  mg/kg (pound pounds) of washed  325.50 65.40 227.40 5,450.00

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

#### (e) Gallium hydrolysis filtrate.

### NSPS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of galliun hydrolyzed	
Arsenic Lead Zinc Fluoride Total suspended solids pH	70.450 14.160 49.220 1,180.000 1,382.000	31.350 6.742 20.560 670.800 657.300

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

#### (f) Solvent extraction raffinate.

## NSPS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million gallium pro- solvent ex-
Arsenic	39.330	17.500
Lead	7.904	3.764
Zinc	27.480	11.480
Fluoride	658.700	374.500
Total suspended solids	771.600	367.000
pH	(1)	(1)

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

## § 421.185 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following

pretreatment standards for existing sources. The mass of wastewater pollutants in primary and secondary germanium and gallium process wastewater introduced into a POTW must not exceed the following values:

#### (a) Still liquor.

### PSES FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	131.70	58.59
Lead	26.46	12.60
Zinc	91.98	38.43
Fluoride	2,205.00	1,254.00

### (b) Chlorinator wet air pollution control.

### PSES FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium chlorinated	
Arsenic	27.530 5.531 19.230 461.000	12.250 2.634 8.034 262.100

#### $\hbox{(c) Germanium hydrolysis filtrate}.\\$

### PSES FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of germanium hydrolyzed	
Arsenic	39.440	17.550
Lead	7.925	3.774
Zinc	27.550	11.510
Fluoride	660.500	375.500

#### (d) Acid wash and rinse water.

### PSES FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of germanium washed	
ArsenicLeadZincFluoride	325.50 65.40 227.40 5,450.00	144.80 31.14 94.99 3,099.00

#### (e) Gallium hydrolysis filtrate.

### PSES FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of gallium hydrolyzed	
Arsenic	70.450 14.160 49.220 1,180.000	31.350 6.742 20.560 670.800

#### (f) Solvent extraction raffinate.

## PSES FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million gallium pro- solvent ex-
Arsenic Lead Zinc Fluoride	39.330 7.904 27.480 658.700	17.500 3.764 11.480 374.500

### §421.186 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary and secondary germanium and gallium process wastewater introduced into a POTW shall not exceed the following values:

(a) Still Liquor.

### PSNS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds of chlorinated	ls per/million germanium
Arsenic  Lead  Zinc Fluoride	131.70 26.46 91.98 2,205.00	58.59 12.60 38.43 1,254.00

### (b) Chlorinator Wet Air Pollution Control.

### PSNS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per/million pounds of germanium chlorinated	
Arsenic Lead	27.530 5.531 19.230 461.000	12.250 2.634 8.034 262.100

#### (c) Germanium Hydrolysis Filtrate.

### PSNS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds of hydrolyzed	ds per/million germanium
Arsenic	39.440 7.925 27.550 660.500	17.550 3.774 11.510 375.500

#### (d) Acid Wash and Rinse Water.

### PSNS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per/millior pounds of germanium washed	
Arsenic	325.50	144.80
Lead	65.40	31.14
Zinc	227.40	94.99

#### PSNS FOR THE PRIMARY AND SECONDARY GER-MANIUM AND GALLIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Fluoride	5,450.00	3,099.00

#### (e) Gallium Hydrolysis Filtrate.

## PSNS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) hydrolyzed	s per million of gallium
Arsenic	70.450 14.160 49.220 1,180.000	31.350 6.742 20.560 670.800

#### (f) Solvent Extraction Raffinate.

### PSNS FOR THE PRIMARY AND SECONDARY GERMANIUM AND GALLIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of gallium pro- duced by solvent extrac- tion	
Arsenic	39.330	17.500
Lead	7.904	3.764
Zinc	27.480	11.480
Fluoride	658.700	374.500

#### §421.187 [Reserved]

#### Subpart Q—Secondary Indium Subcategory

Source:  $50 \ FR \ 38353$ , Sept. 20, 1985, unless otherwise noted.

### §421.190 Applicability: Description of the secondary indium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of indium at secondary indium facilities processing spent electrolyte solutions and scrap indium metal raw materials.

#### §421.191 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §§ 421.192—421.193 [Reserved]

### §421.194 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

#### (a) Displacement Supernatant.

## NSPS FOR THE SECONDARY INDIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of indium metal produced	
Cadmium	2.105	0.929
Lead	2.600	1.238
Zinc	9.037	3.776
Indium	2.724	1.114
Total suspended solids	253.800	120.700
pH	(1)	(1)

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

#### (b) Spent Electrolyte.

### NSPS FOR THE SECONDARY INDIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of dium produc	cathode in-
Cadmium	12.170 15.040 52.270 15.750 1,468.000 (1)	5.370 7.160 21.840 6.444 698.100 (1)

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

## § 421.195 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary indium process

wastewater introduced into a POTW must not exceed the following values:

(a) Displacement Supermentant

#### (a) Displacement Supernatant.

## PSES FOR THE SECONDARY INDIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of indium metal produced	
Cadmium	2.105 2.600 9.037 2.724	0.929 1.238 3.776 1.114

#### (b) Spent Electrolyte.

### PSES FOR THE SECONDARY INDIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode in- dium produced	
CadmiumLeadZincIndium	12.170 15.040 52.270 15.750	5.370 7.160 21.840 6.444

### § 421.196 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary indium process wastewater introduced into a POTW should not exceed the following values:

#### (a) Displacement Supernatant.

### PSNS FOR THE SECONDARY INDIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of indium metal produced	
Cadimum LeadZinc	2.105 2.600 9.037	0.929 1.238 3.776

### PSNS FOR THE SECONDARY INDIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Indium	2.724	1.114

#### (b) Spent Electrolyte.

#### PSNS FOR THE SECONDARY INDIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of dium produc	cathode in-
Cadmium	12.170	5.370
Lead	15.040	7.160
Zinc	52.270	21.840
Indium	15.750	6.444

#### §421.197 [Reserved]

#### Subpart R—Secondary Mercury Subcategory

Source:  $50~\mathrm{FR}~38354,~\mathrm{Sept.}~20,~1985,~\mathrm{unless}$  otherwise noted.

# § 421.200 Applicability: Description of the secondary mercury subcategory.

The provision of this subpart are applicable to discharges resulting from the production of mercury from secondary mercury facilities processing recycled mercuric oxide batteries and other mercury containing scrap raw materials.

#### §421.201 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §§ 421.202—421.203 [Reserved]

### § 421.204 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Spent battery electrolyte.

### NSPS FOR THE SECONDARY MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury pro- duced from batteries	
Lead Mercury	0.030 0.016	0.014 0.006
Total suspended solidspH	1.590 (¹)	1.272 (¹)

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

#### (b) Acid wash and rinse water.

### NSPS FOR THE SECONDARY MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury washed and rinsed	
Lead Mercury Total suspended solidspH	0.00056 0.00030 0.03000 (1)	0.00026 0.00012 0.02400 (¹)

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

#### (c) Furnace wet air pollution control.

#### NSPS FOR THE SECONDARY MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury processed through fur- nace	
Lead Mercury Total suspended solidspH	0.000 0.000 0.000 (¹)	0.000 0.000 0.000 (¹)

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

#### §421.205 [Reserved]

### § 421.206 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary

mercury process wastewater introduced into a POTW shall not exceed the following values:

(a) Spent battery electrolyte.

PSNS FOR THE SECONDARY MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury produced from batteries	
Lead Mercury	0.030 0.016	0.014 0.006

#### (b) Acid wash and rinse water.

### PSNS FOR THE SECONDARY MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury washed and rinsed	
Lead Mercury	0.00056 0.00030	0.00026 0.00012

### (c) Furnance wet air pollution control.

### PSNS FOR THE SECONDARY MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds of mercury processed through fur- nace	
Lead Mercury	0.000 0.000	0.000 0.000

#### §421.207 [Reserved]

## Subpart S—Primary Molybdenum and Rhenium Subcategory

Source:  $50~\mathrm{FR}~38355,~\mathrm{Sept.}~20,~1985,~\mathrm{unless}$  otherwise noted.

# §421.210 Applicability: Description of the primary molybdenum and rhenium subcategory.

The provisions of this subpart are applicable to discharges resulting from

the production of molybdenum and rhenium facilities.

#### §421.211 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.212 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitation representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Molybdenum sulfide leachate.

### BPT LIMITATIONS FOR THE PRIMARY MOLYBDENUM RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum monthly av- erage
	mg/kg (pound pounds) denum sulfi	of molyb-
Arsenic	0.968	0.431
Lead	0.195	0.093
Nickle	0.889	0.588
Selenium	0.570	0.255
Molybdenum	[Reserved]	[Reserved].
Ammonia (as N)	61.720	27.130
Fluoride	16.210	9.214
Total suspended solids	18.980	9.029
pH	(1)	(1)

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

#### (b) Roaster SO<sub>2</sub> scrubber.

### BPT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant of pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum sulfide roasted	
Arsenic	3.509 0.705 3.224 2.065	1.561 0.336 2.133 0.924
Molybdenum	[Reserved] 223.800 58.770	[Reserved]. 98.390 33.410
Total suspended solids	68.840	32.740

BPT LIMITATIONS FOR THE PRIMARY MOLYB-DENUM AND RHENIUM SUBCATEGORY—Continued

Pollutant of pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(¹)	(¹)

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

(c) Molybdic oxide leachate.

### BPT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum contained in molybdic oxide leached	
Arsenic	24.210	10.770
Lead	4.865	2.317
Nickel	22.240	14.710
Selenium	14.250	6.371
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	1,544.000	678.800
Flouride	405.400	230.500
Total suspended solids	474.900	225.900
pH	(1)	(1)

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

### (d) Hydrogen reduction furnace scrubber.

BPT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) denum me produced	of molyb-
Arsenic           Lead           Nickel           Selenium           Molybdenum           Ammonia (as N)	47.860 9.617 43.970 28.170 [Reserved] 3,052.000	21.300 4.580 29.080 12.600 [Reserved] 1,342.000
Fluoride	801.400	455.700
Total suspended solids	938.800	446.500
pH	(1)	(1)

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

### (e) Depleted rhenium scrubbing solution.

BPT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum sulfide roasted	
Arsenic	1.497 0.301	0.666 0.143
Nickel	1.375 0.881	0.909 0.394
MolybdenumAmmonia (as N)	[Reserved] 95.440	[Reserved] 41.960
Fluoride Total suspended solids	25.060 29.360	14.250 13.960
pH	(1)	(¹)

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

 $[50\ FR\ 38355,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31701,\ Aug.\ 3,\ 1990]$ 

#### § 421.213 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Molybdenum sulfide leachate.

BAT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pou pounds) denum sulfi	of molyb-
Arsenic	0.644	0.287
Lead	0.130	0.060
Nickel	0.255	0.171
Selenium	0.380	0.171
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	61.720	27.130
Fluoride	16.210	9.214

<sup>(</sup>b) Roaster SO<sub>2</sub> scrubber.

### BAT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per/million pounds) of molyb- denum sulfide roasted	
2.334 0.470 0.924 1.377 [Reserved] 223.800	1.041 0.218 0.621 0.621 [Reserved] 98.390
58.770	33.410
	mg/kg (pound pounds) denum sulfi 2.334 0.470 0.924 1.377 [Reserved] 223.800

#### (c) Molybdic oxide leachate.

## BAT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of molyb- denum contained in molybdic oxide leached	
Arsenic Lead Nickel Selenium Molybdenum Ammonia (as N) Fluoride	16.100 3.244 6.371 9.499 [Reserved] 1,544.000 405.400	7.182 1.506 4.286 4.286 [Reserved] 678.800 230.500

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### BAT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) denum me produced	of molyb-
Arsenic	3.183 0.641 1.260 1.878 [Reserved]	1.420 0.298 0.847 0.847 [Reserved].
Ammonia (as N)	305.300 80.150	134.200 45.570

## (e) Depleted rhenium scrubbing solution.

## BAT LIMITATIONS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per/million pounds) of molyb- denum sulfide roasted	
Arsenic Lead Nickel Selenium Molybdenum Ammonia (as N) Fluoride	0.995 0.201 0.394 0.587 [Reserved] 95.440 25.060	0.444 0.093 0.265 0.265 [Reserved]. 41.960 14.250

[50 FR 38355, Sept. 20, 1985, as amended at 55 FR 31701, 31702, Aug. 3, 1990]

### § 421.214 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

#### (a) Molybdenum sulfide leachate.

## NSPS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum sulfide leached	
Arsenic Lead Nickel Selenium Molybdenum Ammonia (as N) Fluoride Total suspended solids	0.644 0.130 0.255 0.380 [Reserved] 61.720 16.210 6.945	0.287 0.060 0.171 0.171 [Reserved]. 27.130 9.214 5.556
pH	(1)	(1)

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

#### (b) Roaster SO<sub>2</sub> scrubber.

## NSPS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum sulfide roasted	
Arsenic	2.334	1.041
Lead	0.470	0.218
Nickel	0.924	0.621
Selenium	1.377	0.621
Molybdenum	[Reserved]	[Reserved].

NSPS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	223.800	98.390
Fluoride	58.770	33.410
Total suspended solids	25.190	20.150
pH	(1)	(¹)

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

#### (c) Molybdic oxide leachate.

NSPS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	denum co	ls per million of molyb- ontained in kide leached
Arsenic	16.100 3.244	7.182 1.506
Nickel	6.371	4.286
Selenium	9.499	4.286
Molybdenum	[Reserved]	[Reserved].
Ammonia (as N)	1,544.000	678.800
Fluoride	405.400	230.500
Total suspended solids	173.800	139.000
pH	(1)	(1)

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

## (d) Hydrogen reduction furnace scrubber.

NSPS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum metal powder produced	
Arsenic	3.183	1.420
Lead	0.641	0.298
Nickel	1.260	0.847
Selenium	1.878	0.847
Molybdenum	[Reserved]	[Reserved].
Ammonia (as N)	305.300	134.200
Fluoride	80.150	45.570
Total suspended solids	34.350	27.480
pH	(1)	(1)

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

NSPS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

ximum any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of molyb- denum sulfide roasted	
0.995 0.201 0.394 0.587 eserved] 95.440 25.060 10.740	0.444 0.093 0.265 0.265 [Reserved]. 41.960 14.250 8.592
	10.740 (¹)

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

[50 FR 38355, Sept. 20, 1985, as amended at 55 FR 31702, Aug. 3, 1990]

#### §421.215 [Reserved]

### § 421.216 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary molybdenum and rhenium process wastewater introduced into a POTW shall not exceed the following values:

#### (a) Molybdenum sulfide leachate.

PSNS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum sulfide leached	
Arsenic	0.644 0.130 0.255 0.380 [Reserved] 61.720 16.210	0.287 0.060 0.171 0.171 [Reserved]. 27.130 9.214

<sup>(</sup>b) Roaster SO<sub>2</sub> scrubber.

<sup>(</sup>e) Depleted rhenium scrubbing solution.

PSNS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum sulfide roasted	
Arsenic Lead Nickel	2.334 0.470 0.924	1.041 0.218 0.621
Selenium	1.377 [Reserved]	0.621 [Reserved].
Ammonia (as N)	223.800 58.770	98.390 33.410

#### (c) Molybdic oxide leachate.

PSNS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum contained in molybdic oxide leached	
Arsenic Lead Nickel Selenium Molybdenum Ammonia (as N) Fluoride	16.100 3.244 6.371 9.499 [Reserved] 1,544.000 405.400	7.182 1.506 4.286 4.286 (Reserved). 678.800 230.500

### (d) Hydrogen reduction furnace scrubber.

PSNS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum metal powder produced	
Arsenic Lead Nickel Selenium Molybdenum Ammonia (as N) Fluoride	3.183 0.641 1.260 1.878 [Reserved] 305.300 80.150	1.420 0.298 0.847 0.847 [Reserved] 134.200 45.570

<sup>(</sup>e) Depleted rhenium scrubbing solution.

PSNS FOR THE PRIMARY MOLYBDENUM AND RHENIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) of molyb- denum sulfide roasted		
Arsenic Lead Nickel Selenium Molybdenum Ammonia (as N) Fluoride	0.995 0.201 0.394 0.587 [Reserved] 95.440 25.060	0.444 0.093 0.265 0.265 [Reserved]. 41.960 14.250	

[50 FR 38355, Sept. 20, 1985, as amended at 55 FR 31702, 31703, Aug. 3, 1990]

#### §421.217 [Reserved]

#### Subpart T—Secondary Molybdenum and Vanadium Subcategory

Source:  $50~\mathrm{FR}$  38357, Sept. 20, 1985, unless otherwise noted.

#### §421.220 Applicability: Description of the secondary molybdenum and vanadium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of molybdenum or vanadium by secondary molybdenum and vanadium facilities.

#### §421.221 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.222 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Leach tailings.

### BPT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	grade plus vana	of technical molybdenum adium plus de molyb-
Arsenic	40.778	18.145
Chromium	8.585	3.512
Lead	8.195	3.902
Nickel	37.460	24.779
Iron	23.410	11.902
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	8078.000	3551.000
Total Suspended Solids	799.950	380.460
pH	(1)	(1)

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

### (b) Molybdenum filtrate solvent extraction raffinate.

### BPT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of technica grade molybdenun plus vanadium plus pure grade molyb denum produced	
Arsenic Chromium Lead Nickel Iron Molybdenum Ammonia (as N) Total Suspended Solids	121.720 25.625 24.460 111.819 69.887 [Reserved] 24114.000 2387.800	54.162 10.483 11.648 73.964 35.526 [Reserved] 10600.000 1135.660
pH	(1)	(1)

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

## (c) Vanadium decomposition wet air pollution control.

### BPT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million f vanadium by decompo-
Arsenic	0.000 0.000 0.000	0.000 0.000 0.000

BPT LIMITATIONS FOR THE SECONDARY MOLYB-DENUM AND VANADIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Nickel	0.000	0.000
Iron	0.000	0.000
Molybdenum	0.000	0.000
Ammonia (as N)	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

## (d) Molybdenum drying wet air pollution control.

## BPT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) denum prod	of molyb-
Arsenic	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

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

#### (e) Pure Grade Molybdenum.

### BPT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of denum produ	pure molyb-
Arsenic	48.655	21.650
	10.000	
Chromium	10.243	4.190
Lead	9.778	4.656
Nickel	44.698	29.566
Iron	27.936	14.201
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	9638.000	4237.000
Total Suspended Solids	954.480	453.960
pH	(1)	(1)

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

 $<sup>[50\</sup> FR\ 38357,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31703,\ Aug.\ 3,\ 1990]$ 

#### §421.223 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

#### (a) Leach Tailings.

BAT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of technical grade molybdenum plus vanadium plus pure grade molyb- denum produced	
Arsenic	27.120	12.097
Chromium	7.219	2.927
Lead	5.463	2.536
Nickel	10.731	7.219
Iron	23.413	11.902
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	8078.000	3551.000

## (b) Molybdenum filtrate solvent extraction raffinate.

BAT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of technical grade molybdenum plus vanadium plus pure grade molyb- denum produced	
Arsenic	80.952	36.108
Chronium	21.548	8.736
Lead	16.306	7.571
Nickel	32.031	21.548
Iron	69.887	35.526
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	24114.000	10600.000

 $\begin{tabular}{ll} \begin{tabular}{ll} (c) & Vanadium & decomposition & wet & air \\ pollution & control. \\ \end{tabular}$ 

BAT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million f vanadium by decompo-
Arsenic	0.000	0.000
Chromium	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Iron	0.000	0.000
Molybdenum	0.000	0.000
Ammonia (as N)	0.000	0.000

### (d) Molybdenum drying wet air pollution control.

BAT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb denum produced	
Arsenic Chromium Lead	0.000 0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000

#### (e) Pure Grade Molybdenum.

## BAT LIMITATIONS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Chromium         8.614         3.492           Lead         6.518         3.026           Nickel         12.804         8.614           Iron         27.936         14.201           Molybdenum         [Reserved]         [Reserved]			
Arsenic 32.359 14.434 Chromium 8.614 3.492 Lead 6.518 3.026 Nickel 12.804 8.614 Iron 27.936 14.201 Molybdenum [Reserved] [Reserved]	Pollutant or pollutant property	for any 1	for monthly
Chromium         8.614         3.492           Lead         6.518         3.026           Nickel         12.804         8.614           Iron         27.936         14.201           Molybdenum         [Reserved]         [Reserved]		pounds) of pure molyb-	
Nickel         12.804         8.614           Iron         27.936         14.201           Molybdenum         [Reserved]         [Reserved]			14.434 3.492
Iron         27.936         14.201           Molybdenum         [Reserved]         [Reserved]	Lead	6.518	3.026
Molybdenum [Reserved] [Reserved]	Nickel	12.804	8.614
	Iron	27.936	14.201
Ammonia (as N) 9638.000 4237.000	Molybdenum	[Reserved]	[Reserved]
	Ammonia (as N)	9638.000	4237.000

[50 FR 38357, Sept. 20, 1985, as amended at 55 FR 31703, 31704, Aug. 3, 1990]

### § 421.224 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Leach tailings.

NSPS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of technical grade molybdenum plus vanadium plus pure grade molyb- denum produced	
Arsenic Chromium Lead Nickel Iron Molybdenum Ammonia (as N) Total Suspended Solids	27.120 7.219 5.463 10.731 23.413 [Reserved] 8078.000 292.665	12.097 2.927 2.536 7.219 11.902 [Reserved] 3551.000 234.132
pH	(1)	(1)

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

## (b) Molybdenum filtrate solvent extraction raffinate.

NSPS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of technical grade molybdenum plus vanadium plus pure grade molyb- denum produced	
Arsenic	80.952	36.108
Chromium	21.548	8.736
Lead	16.306	7.571
Nickel	32.031	21.548
Iron	69.887	35.526
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	24114.000	10600.000
Total Suspended Solids	873.585	698.868
pH	(1)	(1)

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

## $\begin{tabular}{ll} (c) Vanadium decomposition wet air pollution control. \end{tabular}$

NSPS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum and vanadium produced	
Arsenic Chromium Lead Nickel Iron Molybdenum	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000
Ammonia (as N) Total suspended solids	0.000 0.000	0.000 0.000
pH	(1)	(1)

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

## (d) Molybdenum drying wet air pollution control.

## NSPS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of molyb- d vanadium
Arsenic Chromium Lead Nickel Iron Molybdenum Ammonia (as N) Total suspended solids pH	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 (1)	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 (1)

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

#### (e) Pure Grade Molybdenum.

## NSPS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure molyb- denum produced	
Arsenic Chromium Lead Nickel Iron Molybdenum Ammonia (as N)	32.359 8.614 6.518 12.804 27.936 [Reserved] 9638.000	14.434 3.492 3.026 8.614 14.201 [Reserved] 4237.000
Total Suspended SolidspH	349.200 (¹)	279.360 (¹)

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

 $[50\ FR\ 38357,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31704,\ Aug.\ 3,\ 1990]$ 

#### §421.225 [Reserved]

### §421.226 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary molybdenum and vanadium process wastewater introduced into a POTW shall not exceed the following values:

(a) Leach tailings.

PSNS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of technical grade molybdenum plus vanadium plus pure grade molyb- denum produced	
27.120	12.097
	2.927 2.536
	7.219
	11.902
	[Reserved]
8078.000	3551.000
	mg/kg (pound pounds) of grade plus vana pure gra denum prod

(b) Molybdenum filtrate solvent extraction raffinate.

PSNS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of technical grade molybdenum plus vanadium plus pure grade molyb- denum produced	
Arsenic Chromium Lead Nickel Iron Molybdenum Ammonia (as N)	80.952 21.548 16.306 32.031 69.887 [Reserved] 24114.000	36.108 8.736 7.571 21.548 35.526 [Reserved] 10600.000

(c) Vanadium decomposition wet air pollution control.

PSNS FOR THE SECONDARY MOLYBDENUM AND VANDADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) vanadium pro- duced by decomposi- tion	
Arsenic	0.000	0.000
Chromium	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Iron	0.000	0.000
Molybdenum	0.000	0.000
Ammonia (as N)	0.000	0.000

(d) Molybdenum drying wet air pollution control.

PSNS FOR THE SECONDARY MOLYBDENUM AND VANDADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of molyb- denum produced	
Arsenic	0.000	0.000
Chromium	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Iron	0.000	0.000
Molybdenum	0.000	0.000
Ammonia (as N)	0.000	0.000

#### (e) Pure Grade Molybdenum.

### PSNS FOR THE SECONDARY MOLYBDENUM AND VANADIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure molyb- denum produced	
Arsenic	32.359	14.434
Chromium	8.614	3.492
Lead	6.518	3.026
Nickel	12.804	8.614
Iron	27.936	14.201
Molybdenum	[Reserved]	[Reserved]
Ammonia (as N)	9638.000	4237.000

[50 FR 38357, Sept. 20, 1985, as amended at 55 FR 31704, 31705 Aug. 3, 1990]

#### §421.227 [Reserved]

#### Subpart U—Primary Nickel and Cobalt Subcategory

SOURCE:  $50 \ FR \ 38359$ , Sept.  $20, \ 1985$ , unless otherwise noted.

# § 421.230 Applicability: Description of the primary nickel and cobalt subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of nickel or cobalt by primary nickel and cobalt facilities processing ore concentrate raw materials.

#### §421.231 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.232 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Raw Material dust control.

BPT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper, nickel, and cobalt in the crushed raw material	
Copper	0.146 0.148 10.260 0.016 3.157	0.077 0.098 4.512 0.007 1.502

AA¹ Within the range of 7.5 to 10.0 at all times.

(b) Nickel wash water.

### BPT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) of nickel pow- der washed		
Copper	0.064 0.065 4.515 0.007 1.389	0.034 0.043 1.985 0.003 0.660	
pH	(1)	(1)	

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

#### (c) Nickel reduction decant.

## BPT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of nickel pro- duced	
Copper Nickel Ammonia (as N) Cobalt Total suspended solids pH	24.120 24.370 1,692.000 2.666 520.500 (1)	12.70 16.12 743.90 1.14 247.60

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

#### (d) Cobalt reduction decant.

### BPT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper Nickel	40.660 41.080 2,852.000 4.494 877.300 (1)	21.400 27.180 1,254.000 1.926 417.300

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

#### § 421.233 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

(a) Raw material dust control.

BAT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper, nickel, and cobalt in the crushed raw material	
Copper	0.099 0.042 10.260 0.011	0.047 0.028 4.512 0.005

#### (b) Nickel wash water.

BAT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of nickel pow- der washed	
Copper	0.043	0.021
Nickel	0.019	0.013
Ammonia (as N)	4.515	1.985
Cobalt	0.005	0.002

#### (c) Nickel reduction decant.

BAT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of nickel pro- duced	
Copper	16.250	7.744
Nickel	6.982	4.697
Ammonia (as N)	1,692.000	743.900
Cobalt	1.777	0.889

#### (d) Cobalt reduction decant.

BAT LIMITATIONS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper	27.390 11.770 2,852.000 2.996	13.050 7.917 1,254.000 1.498

[50 FR 38359, Sept. 20, 1985; 50 FR 41144, Oct. 9, 1985]

### § 421.234 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Raw Material Dust Control.

NSPS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper, nickel, and cobalt in the crushed raw material	
Copper Nickel	0.099 0.042 10.260 0.011 1.155	0.047 0.028 4.512 0.005 0.924

 $<sup>^{\</sup>rm 1}\,\text{Within}$  the range of 7.5 to 10.0 at all times.

#### (b) Nickel wash water.

### NSPS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of nickel pow- der washed	
Copper	0.043 0.019	0.021 0.013
Ammonia (as N)	4.515	1.985
Cobalt	0.005	0.002
Total suspended solids	0.508	0.406
pH	1	1

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

<sup>(</sup>c) Nickel reduction decant.

NSPS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of nickel pro- duced	
Copper Nickel Ammonia (as N) Cobalt Total suspended solids pH	16.250 6.982 1,692.000 1.777 190.400	7.744 4.697 743.900 0.889 152.300

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

#### (d) Cobalt reduction decant.

NSPS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper	27.390 11.770	13.050
Nickel		7.917
Ammonia (as N)	2,852.000	1,254.000
Cobalt	2.996	1.498
Total suspended solids	321.000	256.800
pH	1	1

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

#### § 421.235 [Reserved]

### §421.236 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with a 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary nickel and cobalt process wastewater intro-

duced into a POTW shall not exceed the following values:

(a) Raw material dust control.

PSNS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of copper, nickel, and cobalt in the crushed raw material	
Copper	0.099 0.042 10.260 0.011	0.047 0.028 4.512 0.005

#### (b) Nickel wash water.

### PSNS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of nickel pow- der washed	
Copper	0.043 0.019 4.515 0.005	0.021 0.013 1.985 0.002

#### (c) Nickel reduction decant.

### PSNS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) nickel produced	
Copper	16.250 6.982 1,692.000 1.777	7.744 4.697 743.900 0.889

(d) Cobalt reduction decant.

PSNS FOR THE PRIMARY NICKEL AND COBALT SUBCATEGORY

-		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper	27.390 11.770 2,852.000 2.996	13.050 7.917 1,254.000 1.498

#### §421.237 [Reserved]

#### Subpart V—Secondary Nickel Subcategory

Source:  $50 \ \mathrm{FR} \ 38360$ , Sept. 20, 1985, unless otherwise noted.

### §421.240 Applicability: Description of the secondary nickel subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of nickel by secondary nickel facilities processing slag, spent acids, or scrap metal raw materials.

#### §421.241 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

#### §§ 421.242—421.243 [Reserved]

### § 421.244 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Slag reclaim tailings.

NSPS FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of slag input to reclaim process	
Chromium (total)	5.653	2.313
Copper	24.410	12.850
Nickel	24.670	16.320
Total suspended solids	526.800	250.500
pH	(1)	(1)

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

#### (b) Acid reclaim leaching filtrate.

#### NSPS FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of acid reclaim nickel produced	
Chromium (total)	2.198 9.491 9.590	0.899 4.995 6.344
Total suspended solidspH	204.800 (¹)	97.400 (¹)

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

### (c) Acid reclaim leaching belt filter backwash.

NSPS FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of acid reclaim nickel produced	
Chromium (total) Copper Nickel Total suspended solids pH	0.528 2.278 2.302 49.160 (¹)	0.216 1.199 1.523 23.380 (1)

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

### § 421.245 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary nickel process wastewater introduced into a POTW must not exceed the following values:

(a) Slag reclaim tailings.

PSES FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of slag input to reclaim process	
Chromium (total)	5.653	2.313

### PSES FOR THE SECONDARY NICKEL SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Copper	24.410 24.670	12.850 16.320

#### (b) Acid reclaim leaching filtrate.

### PSES FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of acid reclaim nickel produced	
Chromium (total)	2.198 9.491 9.590	0.899 4.995 6.344

### (c) Acid reclaim leaching belt filter backwash

## PSES FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of acid reclaim nickel produced	
Chromium (total)	0.528 2.278 2.302	0.216 1.199 1.523

### §421.246 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary nickel process wastewater introduced into a POTW shall not exceed the following values:

(a) Slag reclaim tailings.

### PSNS FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of slag input to reclaim process	
Chromium (total)	5.653 24.410 24.670	2.313 12.850 16.320

#### (b) Acid reclaim leaching filtrate.

### PSNS FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of acid reclaim nickel produced	
Chromium (total)	2.198 9.491 9.590	0.899 4.995 6.344

### (c) Acid reclaim leaching belt filter backwash.

## PSNS FOR THE SECONDARY NICKEL SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of acid reclaim nickel produced	
Chromium (total)	0.528 2.278 2.302	0.216 1.199 1.523

#### §421.247 [Reserved]

#### Subpart W—Primary Precious Metals and Mercury Subcategory

Source: 50 FR 38361, Sept. 20, 1985, unless otherwise noted.

#### §421.250 Applicability: Description of the primary precious metals and mercury subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of gold, silver, or mercury by primary precious metals and mercury facilities.

#### §421.251 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.252 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Smelter wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy our and silver	
Lead	0.546 0.325 0.533 1.898	0.260 0.130 0.221 0.793
Gold	0.130 26.000 53.300 (1)	15.600 25.350 (1)

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

(b) Silver chloride reduction spent solution.

BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant of pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver reduced in solution	
Lead	0.168 0.100 0.164 0.584 0.040	0.080 0.040 0.068 0.244
Oil and grease Total suspended solidspH	8.000 16.400 (¹)	4.800 7.800 (1)

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

(c) Electrolytic cells wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

§ 421.252

Pollutant or pollutant property	Maximum for any 1	Maximum for monthly
	day	average
	mg/troy our	nce of gold
	refined elec	
Lead	83.160	39.600
Mercury	49.500	19.800
Silver	81.180	33.660
Zinc	289.100	120.800
Gold	19.800	
Oil and grease	3,960.000	2,376.000
Total suspended solids	8,118.000	3,861.000
pH	(1)	(1)

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

(d) Electrolyte preparation wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounc electrolyte	
Lead Mercury	0.021 0.013	0.010 0.005
Silver	0.021	0.009
Zinc	0.073	0.031
Gold	0.005	
Oil and Grease	1.000	0.600
Total suspended solids	2.050	0.975
pH	(1)	(1)

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

#### (e) Calciner wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds) of densed	s per million mercury con-
Lead	78.200 46.550 76.340 271.900 18.600 3,724.000 7.634.000	37.240 18.620 31.650 113.600 
Total suspended solidspH	7,634.000 (¹)	3,631.000 (¹)

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

(f) Calcine quench water.

### BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead	7.392 4.400 7.216 25.700 1.760 352.000	3.520 1.760 2.992 10.740 211.200
Total suspended solidspH	721.600 (¹)	343.200 (¹)

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

(g) Calciner stack gas contact cooling water.

### BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
	4.740	2 222
Lead	1.743	0.830
Mercury	1.038	0.415
Silver	1.702	0.706
Zinc	6.059	2.532
Gold	0.415	
Oil and Grease	83.000	49.800
Total suspended solids	170.200	80.930
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny I}}$  Within the range of 7.5 to 10.0 at all times.

#### (h) Condenser blowdown.

## BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead	5.796	2.760
Mercury	3.450	1.380
Silver	5.658	2.346
Zinc	20.150	8.418
Gold	1.380	
Oil and Grease	276.000	165.600
Total suspended solids	565.800	269.100
pH	(1)	(1)

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

### BPT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead Mercury Silver Zinc Gold Oil and Grease DH	0.588 0.350 0.574 2.044 0.140 28.000 57.400	0.280 0.140 0.238 0.854 

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

#### § 421.253 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

#### (a) Smelter wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold and silver smelted	
Lead	0.364 0.195 0.377 1.326 0.130	0.169 0.078 0.156 0.546

### (b) Silver chloride reduction spent solution.

## BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver reduced in solution	
ead Nercury	0.112 0.060	0.052 0.024
Silver	0.116	0.048

<sup>(</sup>i) Mercury cleaning bath water.

# BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
ZincGold	0.408 0.040	0.168

### (c) Electrolytic cells wet air pollution control.

## BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold refined electrolytically	
Lead	5.544	2.574
Mercury	2.970	1.188
Silver	5.742	2.376
Zinc	20.200	8.316
Gold	1.980	

## (d) Electrolyte preparation wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver in electrolyte produced	
Lead	0.014 0.008 0.015 0.051 0.005	0.007 0.003 0.006 0.021

### (e) Calciner Wet Air Pollution Control.

## BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead Mercury Silver	6.160 3.300 6.380	2.860 1.320 2.640
Zinc	22.440	9.240
Gold	2.200	

#### (f) Calcine quench water.

## BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of mercury con densed	
Lead	4.928 2.640 5.104 17.950 1.760	2.288 1.056 2.112 7.392

## (g) Calciner stack gas contact cooling water.

## BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead	1.162 0.623 1.204 4.233 0.415	0.540 0.249 0.498 1.743

#### (h) Condenser blowdown.

### BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead	3.864	1.794
Mercury	2.070	0.828
Silver	4.002	1.656
Zinc	14.080	5.796
Gold	1.380	

#### (i) Mercury cleaning bath water.

### BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury con- densed	
Lead Mercury Silver	0.392 0.210 0.406	0.182 0.084 0.168

BAT LIMITATIONS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc	1.428 0.140	0.588

### § 421.254 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Smelter wet air pollution control.

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold and silver smelted	
Lead	0.364	0.169
Mercury	0.195	0.078
Silver	0.377	0.156
Zinc	1.326	0.546
Gold	0.130	
Oil and Grease	13.000	13.000
Total suspended solids	19.500	15.600
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

## (b) Silver chloride reduction spent solution.

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oun reduced ir	
Lead	0.112	0.052
	0.060	0.032
Mercury		
Silver	0.116	0.048
Zinc	0.408	0.168
Gold	0.040	
Oil and Grease	4.000	4.000
Total suspended solids	6.000	4.800
pH	(1)	(1)

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

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy our refined elec	
Lead	5.544	2.574
Mercury	2.970	1.188
Silver	5.742	2.376
Zinc	20.200	8.316
Gold	1.980	
Oil and Grease	198.000	198.000
Total suspended solids	297.000	237.600
pH	(1)	(1)

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

## (d) Electrolyte preparation wet air pollution control. $\label{eq:control}$

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounc electrolyte	
Lead	0.014	0.007
Mercury	0.008	0.003
Silver	0.015	0.006
Zinc	0.051	0.021
Gold	0.005	
Oil and Grease	0.500	0.500
Total suspended solids	0.750	0.600
pH	(1)	(1)

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

#### (e) Calciner wet air pollution control.

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of densed	s per million mercury con-
Lead	6.160 3.300 6.380 22.440	2.860 1.320 2.640 9.240
Gold  Oil and Grease  Total suspended solids  PH	2.200 220.000 330.000 (¹)	220.000 264.000 (¹)

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

<sup>(</sup>c) Electrolytic cells wet air pollution control.  $\,$ 

<sup>(</sup>f) Calcine quench water.

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury con- densed	
Lead Mercury Silver Zinc Gold Oil and Grease Total suspended solids pH	4.928 2.640 5.104 17.950 1.760 176.000 264.000	2.288 1.056 2.112 7.392 176.000 211.200

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{ Within the range of 7.5 to 10.0 at all times.}$ 

(g) Calciner stack gas contract cooling water.

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) or mercury con- densed		
Lead Mercury Silver Zinc Gold Oil and Grease Total suspended solids pH	1.162 0.623 1.204 4.233 0.415 41.500 62.250	0.540 0.249 0.498 1.743 41.500 49.800	

 $<sup>^{\</sup>rm I}\,\mbox{Within}$  the range of 7.5 to 10.0 at all times.

#### (h) Condenser blowdown.

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/kg (pounds per millior pounds) of mercury con- densed	
Lead Mercury	3.864 2.070	1.794 0.828
Silver	4.002 14.080 1.380	1.656 5.796
Oil and Grease  Total suspended solids	138.000 207.000	138.000 165.600
pH	(1)	(1)

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

NSPS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds) of densed	s per million Mercury con-
Lead	0.392	0.182
Mercury	0.210	0.084
Silver	0.406	0.168
Zinc	1.428	0.588
Gold	0.140	
Oil and Grease	14.000	14.000
Total suspended solids	21.000	16.800
pH	(1)	(1)

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

[50 FR 38361, Sept. 20, 1985; 50 FR 41144, Oct. 9, 1985]

#### §421.255 [Reserved]

### § 421.256 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary precious metals and mercury process wastewater introduced into a POTW shall not exceed the following values:

(a) Smelter wet air pollution control.

PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold and silver smelted	
Lead	0.364	0.169
Mercury	0.195	0.078
Silver	0.377	0.156
Zinc	1.326	0.546
Gold	0.130	

(b) Silver chloride reduction spent solution.

<sup>(</sup>i) Mercury cleaning bath water.

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver reduced in solution	
Lead	0.112 0.060 0.116 0.408 0.040	0.052 0.024 0.048 0.168

## (c) Electrolytic cells wet air pollution control.

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold refined electrolytically	
Lead Mercury Silver Zinc Gold	5.544 2.970 5.742 20.200 1.980	2.574 1.188 2.376 8.316

## (d) Electrolyte preparation wet air pollution control.

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of silver in electrolyte produced	
Lead Mercury Silver Zinc Gold	0.014 0.008 0.015 0.051 0.005	0.007 0.003 0.006 0.021

#### (e) Calciner wet air pollution control.

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of mercury condensed	
Lead	6.160 3.300 6.380 22.440	2.860 1.320 2.640 9.240

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Gold	2.200	

#### (f) Calcine quench water.

### PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of mercun condensed	
Lead	4.928 2.640 5.104 17.950	2.288 1.056 2.112 7.392
Gold	1.760	

## $\mbox{(g)}$ Calciner stack gas contact cooling water.

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mercury condensed	
Lead	1.162	0.540
Mercury	0.623	0.249
Silver	1.204	0.498
Zinc	4.233	1,743
Gold	0.415	

#### (h) Condenser blowdown.

## PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) condensed	ls per million of mercury
Lead	3.864	1.794
Mercury	2.070	0.828
Silver	4.002	1.656
Zinc	14.080	5.656
Gold	1.380	

#### (i) Mercury cleaning bath water.

PSNS FOR THE PRIMARY PRECIOUS METALS AND MERCURY SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) condensed	
Lead	0.392	0.182
Mercury	0.210	0.084
Silver	0.406	0.168
Zinc	1.428	0.588
Gold	0.140	

#### §421.257 [Reserved]

#### Subpart X—Secondary Precious Metals Subcategory

Source: 50 FR 38365, Sept. 20, 1985, unless otherwise noted.

# § 421.260 Applicability: Description of the secondary precious metals subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of precious metals at secondary precious metals facilities.

#### $\S421.261$ Specialized definitions.

For the purpose of this subpart:

- (a) Except as provided below, the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.
- (b) The term *precious metals* shall mean gold, platinum, palladium, rhodium, iridium, osmium, and ruthenium
- (c) The term *Combined Metals,* shall mean the total of gold, platinum and palladium.

 $[50\ FR\ 38365,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31705,\ Aug.\ 3,\ 1990]$ 

#### § 421.262 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the appli-

cation of the best practicable technology currently available:

(a) Furnace wet air pollution control.

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, incinerated or smelted	
Copper	136.400 20.820 104.800 9,571.000 21.54	71.800 8.616 43.800 4,207.000
Total suspended solidspH	2,944.000 (¹)	1,400.000 (¹)

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

#### (b) Raw material granulation.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metal in the granulated raw material	
0	40.050	0.040
Copper	12.050	6.340
Cyanide (total)	1.839	0.761
Zinc	9.256	3.867
Ammonia (as N)	845.100	371.500
Combined metals	1.902	
Total suspended solids	259.900	123.600
pH	(1)	(1)

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

#### (c) Spent plating solutions.

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/liter of spent plating solution used as a raw material	
Copper	1.900	1.000
Cyanide (total)	0.290	0.120
Zinc	1.460	0.610
Ammonia (as N)	133.300	58.600
Combined metals	0.300	
Total suspended solids	41.000	19.500
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(d) Spent cyanide stripping solutions.

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oung produced stripping	ce of gold by cyanide
Copper Cyanide (total)	7.030 1.073 5.402 493.200 1.110 151.700	3.700 0.444 2.257 216.800
pH	(1)	(1)

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

### (e) Refinery wet air pollution control. $^2$

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper	39.900 6.090 30.660	21.000 2.520 12.810
Ammonia (as N)  Combined metals  Total suspended solids	2,799.000 6.300 861.000	1,231.000 409.500
pH	(¹)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.5 to 10.0 at alltimes.

## (f) Gold solvent extraction raffinate and wash water.

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oung produced extraction	ce of gold by solvent
Copper	1.197 0.183 0.920 83.980	0.630 0.076 0.384 36.920
Combined metals  Total suspended solids	0.189 25.830	12.290

<sup>&</sup>lt;sup>2</sup>This allowance applies to either acid or alkaline wet air pollution control scrubbers. If both acid and alkaline wet air pollution control scrubbers are present in a particular facility the same allowance applies to each.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

#### (g) Gold spent electrolyte.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy our produced by	
Copper Cyanide (total) Zinc Ammonia (as N) Combined metals Total suspended solids pH	0.017 0.003 0.103 1.160 0.003 0.357 (¹)	0.009 0.001 0.005 0.510 0.170

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

### $\hbox{(h) Gold precipitation and filtration.}\\$

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of gold precipitated	
8.360 1.276	4.400 0.528
6.424	2.684
	257.800
180.400	85.800
(1)	(1)
	for any 1 day mg/troy our precip 8.360 1.276 6.424 586.500 1.320 180.400

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

## (i) Platinum precipitation and filtration.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

	Maximum Maximu	
Pollutant or pollutant property	for any 1	for monthly
	day	average
	mg/troy ounce of platinum precipitated	
Copper	9.880	5.200
Cyanide (total)	1.508	0.624
Zinc	7.592	3.172
Ammonia (as N)	693.200	304.700
Combined metals	1.560	
Total suspended solids	213,200	101.400

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

## (j) Palladium precipitation and filtration.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy o palladium p	
Copper	11.400 1.740 8.760	6.000 0.720 3.660
Ammonia (as N)	799.800 1.800	351.600
Total suspended solidspH	246.000 (¹)	117.000 (¹)

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

## $\left(k\right)$ Other platinum group metals precipitation and filtration.

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ound platinum g precipitated	roup metals
Copper	9.880 1.508 7.592 693.200 1.560	5.200 0.624 3.172 304.700
Total suspended solidspH	213.200 (¹)	101.400 (1)

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

### (l) Spent solution from PGC salt production.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold contained in PGC product	
Copper	1.710 0.261 1.314 120.000 0.270 36.900	0.900 0.108 0.549 52.740 17.550
pH	(')	(,)

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

<sup>(</sup>m) Equipment and floor wash.

### BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper Cyanide (total)	0.000 0.000 0.000 0.000 0.000 0.000 (1)	0.000 0.000 0.000 0.000 0.000 0.000 (¹)

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

#### (n) Preliminary treatment.

## BPT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of total precious metals pro- duced through this op- eration	
Copper Cyanide (Total)	95.000 14.500	50.000 6.000
Zinc	73.000	30.500
Ammonia (as N)	6665.000	2930.000
Combined Metals	15.000	
Total Suspended Solids	2050.000	975.000
pH	(1)	(1)

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

 $[50\ FR\ 38365,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31705,\ 31706,\ Aug.\ 3,\ 1990]$ 

#### §421.263 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

#### (a) Furnace wet air pollution control.

### BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, incinerated or smelted	
Copper	5.760 0.900 4.590 1.350 599.900	2.745 0.360 1.890 263.700

#### (b) Raw material granulation.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals in the granu- lated raw material	
Copper	0.819 0.128 0.653 0.192 0.064	0.390 0.051 0.269
Platinum	0.064 85.310	37.500

#### (c) Spent plating solutions.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/liter of spent plating solution used as a raw material	
Copper	1.280	0.610
Cyanide (total)	0.200	0.080
Zinc	1.020	0.420
Gold.		
Combined metals	0.300	
Ammonia (as N)	133.300	58.600

#### (d) Spent cyanide stripping solutions.

### BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold produced by cyanide stripping	
Copper	4.736	2.257
Cyanide (total)	0.740	0.296
Zinc	3.774	1.554
Combined metals	1.110	
Ammonia (as N)	493.200	216.800

## (e) Refinery Wet Air Pollution Control $^{\rm 2}$

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper	1.280	0.610
Cyanide (total)	0.200	0.080
Zinc	1.020	0.420
Combined metals	0.300	
Ammonia (as N)	133.300	58.600

### (f) Gold solvent extraction raffinate and wash water.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oung produced extraction	ce of gold by solvent
Copper	0.806 0.126 0.643 0.189	0.384 0.050 0.265
Ammonia (as N)	83.980	36.920

#### (g) Gold spent electrolyte.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold produced by electrolysis	
Copper Cyanide (total)	0.0111 0.0017 0.0089 0.0030 1.1600	0.0053 0.0007 0.0037 0.5100

#### (h) Gold precipitation and filtration.

### BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold precipitated	
Copper Cyanide (total) Zinc Combined metals Ammonia (as N)	5.632 0.880 4.488 1.320 586.500	2.684 0.352 1.848 257.800

## (i) Platinum precipitation and filtration.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

for any 1 day	Maximum for monthly average
mg/troy ounce of platinum precipitated	
6.656 1.040 5.304 0.560	3.172 0.416 2.184 304,700
	mg/troy ounce precipi 6.656 1.040 5.304

## $(j)\ Palladium\ precipitation\ and\ filtration.$

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of palladium precipitated	
Copper	7.680 1.200 6.120	3.660 .480 2.520

<sup>&</sup>lt;sup>2</sup>This allowance applies to either acid or alkaline wet air pollution control scrubbers. If both acid and alkaline wet air pollution control scrubbers are present in a particular facility the same allowance applies to each.

#### 40 CFR Ch. I (7-1-98 Edition)

#### § 421.264

### BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Combined metals Ammonia (as N)	1.800 799.800	351.600

## (k) Other platinum group metals precipitation and filtration.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of other platinum group metals precipitated	
Copper Cyanide (total)	6.656 1.040	3.172 0.416
Zinc	5.304	2.184
Combined metals	1.560	
Ammonia (as N)	693.200	304.700

## (l) Spent solutions from PGC salt production.

### BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of gold contained in PGC product	
1.152	0.549
0.180	0.072
0.918	0.378
0.270	
120.000	52.740
	for any 1 day  mg/troy our contained in 1  1.152 0.180 0.918 0.270

#### (m) Equipment and floor wash.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper Cyanide (total)	0.000	0.000
Zinc	0.000	0.000
Combined metals	0.000	0.000
Ammonia (as N)	0.000	0.000

#### (n) Preliminary Treatment.

## BAT LIMITATIONS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Mg/troy oung precious in duced throw eration	
Copper	64.000 10.000 51.000	30.500 4.000 21.000
Combined metals	15.000 6665.000	2930.000

[50 FR 38365, Sept. 20, 1985, as amended at 55 FR 31706–31708, Aug. 3, 1990; 55 FR 36932, Sept. 7, 1990]

### §421.264 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Furnace wet air pollution control.

## NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, incinerated or smelted	
Copper	5.760 0.900 4.590 1.350 599.900 67.500 (1)	2.745 0.360 1.890 263.700 54.000 (¹)

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

#### (b) Raw material granulation.

## NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals in the granu- lated raw material	
Copper	0.819 0.128 0.653 0.192 85.310 9.600	0.390 0.051 0.269 37.500 7.680

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

#### (c) Spent plating solutions.

### NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/liter of spent plating solution used as a raw material	
Copper	1.280	0.610
Cyanide (total)	0.200	0.080
Zinc	1.020	0.420
Combined metals	0.300	
Ammonia (as N)	133.300	58.600
Total suspended solids	15.000	12.000
pH	(1)	(1)

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

#### (d) Spent cyanide stripping solutions.

### NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum Maximum for any 1 for month average	
	mg/troy ounce of gold produced by cyanide stripping	
Copper	4.736	2.257
Cyanide (total)	0.740	0.296
Zinc	3.774	1.554
Combined metals	1.11	
Ammonia (as N)	493.200	216.800
Total suspended solids	55.500	44.400
pH	(1)	(1)

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

### (e) Refinery Wet Air Pollution Control <sup>2</sup>

NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper	1.280	0.610
Cyanide (total)	0.200	0.080
Zinc	1.020	0.420
Combined metals	0.300	
Ammonia (as N)	133.300	58.600
Total suspended solids	15.000	12.000

<sup>&</sup>lt;sup>2</sup>This allowance applies to either acid or alkaline wet air pollution control scrubbers. If both acid and alkaline wet air pollution control scrubbers are present in a particular facility the same allowance applies to each.

## NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

## (f) Gold solvent extraction raffinate and wash water.

### NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oung produced extraction	ce of gold by solvent
Copper	0.806 0.126 0.643 0.189	0.384 0.050 0.265
Ammonia (as N)	83.980 9.450 (1)	36.920 7.560 (¹)

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

#### (g) Gold spent electrolyte.

### NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy our produced by	
Copper Cyanide (total) Combined metals Zinc Ammonia (as N) Total suspended solids pH	0.011 0.002 0.003 0.009 1.160 0.131 (¹)	0.005 0.001 0.004 0.510 0.104 (¹)

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

#### (h) Gold precipitation and filtration.

## NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy our precip	
Copper	5.632 0.880 4.488 1.320 586.500 66.00	2.684 0.352 1.848 257.800 52.800

NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

### (i) Platinum precipitation and filtration.

NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of platinum precipitated	
Copper Cyanide (total) Zinc Combined metals Ammonia (as N) Total suspended solids pH	6.656 1.040 5.304 1.560 693.200 78.000	3.172 0.416 2.184 

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

## (j) Palladium precipitation and filtration.

NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy o palladium p	
Copper	7.680 1.200 6.1200 1.800 799.800 90.000	3.660 0.480 2.520 351.600 72.000
pH	(1)	(1)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.5 to 10.00 at all times.

## $\left(k\right)$ Other platinum group metals precipitation and filtration.

NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of other platinum group metals precipitated	
Copper	6.656 1.040 5.304 1.560	3.172 0.416 2.184
Combined metals	1.000	·

## NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	693.200	304.700
Total suspended solids	78.000	62.400

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

### (l) Spent solution from PGC salt production.

### NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy our contained in I	
Copper Cyanide (total) Zinc Combined metals Ammonia (as N) Total suspended solids pH	1.152 0.180 0.918 0.270 120.000 13.500 (¹)	0.549 0.072 0.378 52.740 10.800

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

#### (m) Equipment and floor wash.

## NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/troy ounce of precious metals, including silver, produced in refinery		
Copper	0.000 0.000 0.000	0.000 0.000 0.000	
Combined metals	0.000		
Ammonia (as N)	0.000	0.000	
Total suspended solids	0.000	0.000	
pH	(1)	(1)	

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

#### (n) Preliminary Treatment.

### NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of total precious metals pro- duced through this op- eration	
Copper	64.000 10.000	30.500 4.000

NSPS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc	51.000 15.000 6665.000	21.000
Total Suspended SolidspH	750.000 (¹)	600.000 (¹)

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

[50 FR 38365, Sept. 20, 1985, as amended at 55 FR 31708-31710, Aug. 3, 1990]

### §421.265 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary precious metals process wastewater introduced into a POTW must not exceed the following values:

#### (a) Furnace wet air pollution control.

PSES FOR THE SECONDARY PRECIOUS METALS
SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, incinerated or smelted	
Copper	5.760	2.745
Cyanide (total)	0.900	0.360
Zinc	4.590	1.890
Combined metals	1.350	
Ammonia (as N)	599.900	263.700

#### (b) Raw material granulation.

PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals in the granu- lated raw material	
Copper	0.819	0.390
Cyanide (total)	0.128	0.051
Zinc	0.653	0.269
Combined metals	0.192	l

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	85.310	37.500

#### (c) Spent plating solutions.

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/liter of spent plating solution used as a raw material	
Copper Cyanide (total) Zinc Combined metals Ammonia (as N)	1.280 0.200 1.020 0.300 133.300	0.610 0.080 0.420 58.600

#### (d) Spent Cyanide stripping solutions.

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oung produced stripping	ce of gold by cyanide
Copper Cyanide (total) Zinc Combined metals Ammonia (as N)	4.736 0.740 3.774 1.110 493.200	2.257 0.296 1.554 216.800

## (e) Refinery Wet Air Pollution Control. $^{1}$

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper	1.280 0.200 1.020	0.610 0.080 0.420

<sup>&</sup>lt;sup>1</sup>This allowance applies to either acid or alkaline wet air pollution control scrubbers. If both acid and alkaline wet air pollution control scrubbers are present in a particular facility the same allowance applies to each.

PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Combined metals Ammonia (as N)	0.300 133.300	58.600

## (f) Gold solvent extraction raffinate and wash water.

## PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oun	
Copper	0.806	0.384
Cyanide (total)	0.126	0.050
Zinc	0.643	0.265
Combined metals	0.189	
Ammonia (as N)	83.980	36.920

#### (g) Gold spent electrolyte.

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold produced by electrolysis	
Copper	0.011 0.002 0.009 0.003 1.160	0.005 0.001 0.004 

#### (h) Gold precipitation and filtration.

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold precipitated	
Copper Cyanide (total)	5.632 0.880	2.684 0.352
Zinc	4.488	1.848
Combined metals	1.320	
Ammonia (as N)	586.500	257.800

## (i) Platinum precipitation and filtration.

## PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of platinum precipitated	
Copper	6.656 1.040 5.304 1.560 693.200	3.172 0.416 2.184 304.700

## (j) Palladium precipitation and filtration.

## PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of palladium precipitated	
Copper	7.680 1.200 6.120 1.800 799.800	3.660 0.480 2.520 351.600

## (k) Other platinum group metals precipitation and filtration.

## PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of other platinum group metals precipitated	
Copper	6.656 1.040 5.304 1.560 693.200	3.172 0.416 2.184 304.700

### (l) Spent solution from PGC salt production.

## PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold contained in PGC product	
Copper Cyanide (total)	1.152 0.180	0.549 0.072
Zinc	0.918	0.378

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Combined metals Ammonia (as N)	0.270 120.000	52.740

#### (m) Equipment and floor wash.

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000

#### (n) Preliminary Treatment.

### PSES FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

<b>3</b> 055711255111		
Maximum for any 1 day	Maximum for monthly average	
Mg/troy ounce of total precious metals pro- duced through this op- eration		
64.000	30.500	
10.000	4.000	
51.000	21.000	
15.000		
6665.000	2930.000	
	for any 1 day  Mg/troy ound precious or duced through the desired for the desired for the day of th	

[50 FR 38365, Sept. 20, 1985, as amended at 55 FR 31710, 31711, Aug. 3, 1990]

### § 421.266 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary precious metals process wastewater introduced into a POTW shall not exceed the following values:

(a) Furnace wet air pollution control.

### PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, incinerated or smelted	
Copper	5.760 0.900 4.590 1.350 599.900	2.745 0.360 1.890 263.700

#### (b) Raw material granulation.

## PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, in the granu- lated raw material	
Copper	0.819 0.128 0.653 0.192	0.390 0.051 0.269
Ammonia	85.310	37.50

#### (c) Spent plating solutions.

### PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/liter of spent plating solution used as a raw materail	
Copper	1.280 0.200 1.020 0.300 133.300	0.610 0.080 0.420 58.600

#### (d) Spent cyanide stripping solutions.

### PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold produced by cyanide stripping	
Copper Cyanide (total)	4.736 0.740 3.774	2.257 0.296 1.554
Combined metals	1.110	

PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	493.200	216.800

## (e) Refinery Wet Air Pollution Control. $^{1}$

### PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of precious metals, including silver, produced in refinery	
Copper Cyanide (total) Zinc Combined metals	1.280 0.200 1.020 0.300	0.610 0.080 0.420
Ammonia (as N)	133.300	58.600

### (f) Gold solvent extraction raffinate and wash water.

PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy oung produced extraction	ce of gold by solvent
Copper	0.806 0.126 0.643 0.189 83.980	0.384 0.050 0.265 36.920

#### (g) Gold spent electrolyte.

## PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold produced by electrolysis	
Copper Cyanide (total)	0.011 0.002 0.009	0.005 0.001 0.004
Combined metals	0.300	

<sup>&</sup>lt;sup>1</sup>This allowance applies to either acid or alkaline wet air pollution control scrubbers. If both acid and alkaline wet air pollution control scrubbers are present in a particular facility the same allowance applies to each.

## PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	1.160	0.510

#### (h) Gold precipitation and filtration.

## PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold precipitated	
CopperCyanide (total)	5.632 0.880	2.684 0.352
Zinc	4.488	1.848
Combined metals	1.320	
Ammonia (as N)	586.500	257.800

### (i) Platinum precipitation and filtration.

## PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of platinum precipitated	
6.656 1.040 5.304 1.560 693.200	3.172 0.416 2.184 304.700
	for any 1 day  mg/troy ounce precip  6.656 1.040 5.304 1.560

## $(j)\ Palladium\ precipitation\ and\ filtration.$

### PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of platinum precipitated	
Copper	7.680 1.200 6.120 1.800 799.800	3.660 0.480 2.520 351,600

(k) Other platinum group metals precipitation and filtration.

PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of other platinum group metals precipitated	
Copper	6.656	3.172
Cyanide (total)	1.040	0.416
Zinc	5.304	2.184
Combined metals	1.560	
Ammonia (as N)	693.200	304.700

(l) Spent solution from PGC salt production.

PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/troy ounce of gold contained in PGC product	
Copper	1.152	0.549
Cyanide (total)	0.180	0.072
Zinc	0.918	0.378
Combined metals	0.270	
Ammonia (as N)	120.000	52.740

(m) Equipment and floor wash.

PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/troy ounce of precious metals, including silver, produced in refinery	
0.000	0.000
0.000	0.000
0.000	0.000
0.000	
0.000	0.000
	mg/troy ounce metals, inci produced ir 0.000 0.000 0.000 0.000

(n) Preliminary Treatment.

PSNS FOR THE SECONDARY PRECIOUS METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly averge
	mg/troy ounce of total precious metals pro- duced through this op- eration	
Copper	64.000	30.500
Cyanide (Total)	10.000	4.000
Zinc	51.000	21.000
Combined Metals	15.000	
Ammonia (as N)	6665.000	2930.000

 $[50~{\rm FR}~38365,~{\rm Sept.}~20,~1985,~{\rm as}~{\rm amended}~{\rm at}~55~{\rm FR}~31711–31713,~{\rm Aug.}~3,~1990]$ 

#### §421.267 [Reserved]

#### Subpart Y—Primary Rare Earth Metals Subcategory

Source:  $50 \ FR \ 38371$ , Sept. 20, 1985, unless otherwise noted.

#### § 421.270 Applicability: Description of the primary rare earth metals subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of rare earth metals and mischmetal by primary rare earth metals facilities processing rare earth metal oxides, chlorides, and fluorides.

#### §421.271 Specialized definitions.

In addition to what is provided below:

- (a) The general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.
- (b) The term *rare earth metals* refers to the elements scandium, yttrium, and lanthanum to lutetium, inclusive.
- (c) The term *mischmetal* refers to a rare earth metal alloy comprised of the natural mixture of rare earths to about 94–99 percent. The balance of tha alloy includes traces of other elements and one to two percent iron.

#### §§ 421.272—421.273

### 40 CFR Ch. I (7-1-98 Edition)

#### §§ 421.272—421.273 [Reserved]

## §421.274 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Dryer Vent Water Quench and Scrubber.

NSPS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mischmetal produced from wet rare earth chlorides	
Hexachlorobenzene	0.042	0.042
Chromium (total)	1.544	0.626
Lead	1.168	0.542
Nickel	2.295	1.544
Total suspended solids	62.600	50.080
pH	(1)	(¹)

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

(b) Dryer vent caustic wet air pollution control.

NSPS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		mischmetal om wet rare
Hexachlorobenzene	0.007	0.007
Chromium (total)	0.272	0.110
Lead	0.206	0.095
Nickel	0.404	0.272
Total suspended solids	11.010	8.808
pH	(1)	(1)

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

(c) Electrolytic cell water quench and scrubber.

## NSPS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal p	of total
Hexachlorobenzene	0.094	0.094
Chromium (total) Lead	3.474 2.629	1.409 1.221
Nickel	5.165	3.474
Total suspended solids	140.900	112.700
pH	(1)	(1)

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

(d) Electrolytic cell caustic wet air pollution control.

### NSPS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal p	of total
Hexachlorobenzene Chromium (total) Lead Nickel Total suspended solids pH	0.000 0.000 0.000 0.000 0.000 (1)	0.000 0.000 0.000 0.000 0.000 (1)

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

(e) Sodium hypochlorite filter backwash.

### NSPS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of total mischmetal produced	
Hexachlorobenzene	0.004 0.134 0.101 0.199 5.430 (¹)	0.004 0.054 0.047 0.134 4.334 (¹)

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

## § 421.275 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in primary rare earth metals process wastewater introduced into a POTW must not exceed the following values:

(a) Dryer vent water quench scrubber.

PSES FOR THE PRIMARY RARE EARTH METALS
SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		mischmetal om wet rare
Hexachlorobenzene	0.042 1.544 1.168 2.295	0.042 0.626 0.542 1.544

(b) Dryer Vent Caustic Wet Air Pollution Control.

PSES FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mischmetal produced from wet rare earth chlorides	
Hexachlorobenzene	0.007 0.272 0.206 0.404	0.007 0.110 0.095 0.272

(c) Electrolytic cell water quench and scrubber.

PSES FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal	of total
Hexachlorobenzene	0.094 3.474 2.629 5.165	0.094 1.409 1.221 3.474

(d) Electrolytic cell caustic wet air pollution control.

PSES FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of total mischmetal produced	
Hexachlorobenzene	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

(e) Sodium hypochlorite filter backwash.

PSES FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal	of total
Hexachlorobenzene	0.004 0.134 0.101 0.199	0.004 0.054 0.047 0.134

## § 421.276 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary rare earth metals process wastewater introduced into a POTW shall not exceed the following values:

(a) Dryer vent water quench and scrubber.

PSNS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mischmetal produced from wet rare earth chlorides	
Hexachlorobenzene	0.042	0.042
Chromium (total)	1.544	0.626
Lead	1.168	0.542
Nickel	2.295	1.544

(b) Dryer vent caustic wet air pollution control.

PSNS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of mischmetal produced from wet rare earth chlorides	
Hexachlorobenzene	0.007 0.272 0.206 0.404	0.007 0.110 0.095 0.272

(c) Electrolytic cell water quench and scrubber.

PSNS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal	of total
Hexachlorobenzene	0.094 3.474 2.629 5.165	0.094 1.409 1.221 3.474

(d) Electrolytic cell caustic wet air pollution control.

### PSNS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal	of total
Hexachlorobenzene	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

(e) Sodium hypochlorite filter backwash.

PSNS FOR THE PRIMARY RARE EARTH METALS SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) mischmetal	of total
Hexachlorobenzene	0.004 0.134 0.101 0.199	0.004 0.054 0.047 0.134

#### §421.277 [Reserved]

#### Subpart Z—Secondary Tantalum Subcategory

Source:  $50 \ FR \ 38374$ , Sept. 20, 1985, unless otherwise noted.

# § 421.280 Applicability: Description of the secondary tantalum subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of tantalum at secondary tantalum facilities.

#### §421.281 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §421.282 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point

source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Tantalum alloy leach and rinse.

BPT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum pow- der produced	
Copper	438.100 96.850 442.800 336.700 103.800	230.600 46.120 292.900 140.700
Total suspended solidspH	9,455.000 (¹)	4,497.000 (¹)

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

#### (b) Capacitor leach and rinse.

BPT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

.,		
Pollutant or pollutant property	Maximum Maximur for any 1 for month day average	
	mg/kg (pounds per million pounds) of tantalum powder produced from leaching	
Copper	38.380	20.200
Lead	8.484	4.040
Nickel	38.780	25.650
Zinc	29.490	12.320
Tantalum	9.090	
Total suspended solids	828.200	393.900
pH	(1)	(1)

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

#### (c) Tantalum sludge leach and rinse.

BPT LIMITATIONS FOR THE SECONDARY
TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of equivalent pure tantalum powder produced	
Copper	390.100	205.300
Lead	86.230	41.060
Nickel	394.200	260.700
Zinc	299.700	125.200
Tantalum	92.390	
Total suspended solids	8,417.000	4,003.000

## BPT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

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

(d) Tantalum powder acid wash and rinse.

BPT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day Maximum average	
	mg/kg (pounds per million pounds) of tantalum powder produced	
Copper	0.665 0.147 0.672 0.511 0.158	0.350 0.070 0.445 0.214
Total suspended solidspH	14.350 (¹)	6.825 (1)

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

## (e) Leaching wet air pollution control.

BPT LIMITATIONS FOR THE SECONDARY
TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of equivalen pure tantalum powder produced	
Copper	9.272	4.880
Lead	2.050	0.976
Nickel	9.370	6.198
Zinc	7.125	2.977
Tantalum	2.196	
Total suspended solids	200.100	95.160
pH	(1)	(1)

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

#### § 421.283 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall

#### 40 CFR Ch. I (7-1-98 Edition)

#### § 421.284

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

(a) Tantalum alloy leach and rinse.

## BAT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder produced	
Copper	295.200	140.700
Lead	64.570	29.980
Nickel	126.800	85.320
Zinc	235.200	96.850
Tantalum	103.800	

#### (b) Capacitor leach and rinse.

### BAT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder produced from leaching	
Copper	25.860	12.320
Lead	5.656	2.626
Nickel	11.110	7.474
Zinc	20.600	8.484
Tantalum	9.090	

#### (c) Tantalum sludge leach and rinse.

## BAT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of equivalent pure tantalum powder produced	
Copper	262.800	125.200
Lead	57.480	26.690
Nickel	112.900	75.960
Zinc	209.400	86.230
Tantalum	92.390	

(d) Tantalum powder acid wash and rinse.

### BAT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per pounds) of ta powder produced	
Copper	0.448	0.214
Lead	0.098	0.046
Nickel	0.193	0.130
Zinc	0.357	0.147
Tantalum	0.158	

(e) Leaching wet air pollution control.

BAT LIMITATIONS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million f equivalent lum powder
Copper	6.246	2.977
Lead	1.366	0.634
Nickel	2.684	1.806
Zinc	4.978	2.050
Tantalum	2.196	

### § 421.284 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Tantalum alloy leach and rinse.

### NSPS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of powder pro	of tantalum
Copper	295.200 64.570	140.700 29.980
Nickel	126.800	85.320
Zinc	235.200	96.850
Tantalum	103.800	
Total suspended solids	3,459.000	2,767.000
pH	(1)	(1)

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

(b) Capacitor leach and rinse.

### NSPS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tantalum powder produced from leaching	
Copper	25.860	12.320
Lead	5.656	2.626
Nickel	11.110	7.474
Zinc	20.600	8.484
Tantalum	9.090	
Total suspended solids	303.000	242.400
pH	(1)	(1)

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

#### (c) Tantalum sludge leach and rinse.

## NSPS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of equivalent pure tantalum powder produced	
Copper Lead	262.800 57.480 112.900 209.400 92.390	125.200 26.690 75.960 86.230
Total suspended solidspH	3,080.000 (¹)	2,464.000 (¹)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

### (d) Tantalum powder acid wash and rinse.

NSPS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) of tantalum powder produced		
Copper	0.448 0.098 0.193 0.357	0.214 0.046 0.130 0.147	
Tantalum Total suspended solidspH	0.158 5.250 (¹)	4.200 (¹)	

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

(e) Leaching wet air pollution control.

NSPS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of equivalent pure tantalum powder produced	
Copper	6.246	2.977
Lead	1.366	0.634
Nickel	2.684	1.806
Zinc	4.978	2.050
Tantalum	2.196	
Total suspended solids	73.200	58.560
pH	(1)	(1)

 $AA^{{\scriptscriptstyle \parallel}}$  Within the range of 7.5 to 10.0 at all times.

#### §421.285 [Reserved]

### § 421.286 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary tantalum process wastewater introduced into a POTW shall not exceed the following values:

(a) Tantalum alloy leach and rinse.

PSNS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of powder pro	of tantalum
Copper	295.200	140.700
Lead	64.570	29.980
Nickel	126.800	85.320
Zinc	235.200	96.850
Tantalum	103.800	

(b) Capacitor leach and rinse.

§ 421.287

PSNS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per mi pounds) of tanta powder produced leaching	
Copper	25.860	12.320
Lead	5.656	2.626
Nickel	11.110	7.474
Zinc	20.600	8.484
Tantalum	9.090	

#### (c) Tantalum sludge leach and rinse.

### PSNS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of equivalent pure tantalum powder produced	
Copper	262.800	125.200
Lead	57.480	26.690
Nickel	112.900	75.960
Zinc	209.400	86.230
Tantalum	92.390	

(d) Tantalum powder acid wash and rinse.

PSNS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of powder pro	of tantalum
Copper	0.448	0.214
Lead	0.098	0.046
Nickel	0.193	0.130
Zinc	0.357	0.147
Tantalum	0.158	

(e) Leaching wet air pollution control.

### PSNS FOR THE SECONDARY TANTALUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million f equivalent lum powder
Copper	6.246	2.977
Lead	1.366	0.634
Nickel	2.684	1.806
Zinc	4.978	2.050
Tantalum	2.196	

#### §421.287 [Reserved]

#### Subpart AA—Secondary Tin Subcategory

Source:  $50 \ \mathrm{FR} \ 38376$ , Sept.  $20, \ 1985$ , unless otherwise noted.

## § 421.290 Applicability: Description of the secondary tin subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of tin at secondary tin facilities utilizing either pyrometallurgical or hydrometallurgical processes to recover tin from secondary materials.

#### $\S421.291$ Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### § 421.292 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Tin smelter SO<sub>2</sub> scrubber.

BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of crude tapped tin metal pro- duced	
Arsenic	19.220	8.554
Lead	3.863	1.840
Iron	11.040	5.611
Tin	3.495	2.024
Total suspended solids	377.100	179.400
pH	(1)	(1)

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

#### (b) Dealuminizing rinse.

BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day Maximum average	
	mg/kg (pounds per million pounds) of dealuminized scrap produced	
Lead	0.015 0.010 1.225 0.013	0.007 0.004 0.700 0.008
Total suspended solidspH	1.435 (¹)	0.683 (¹)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{ Within the range of 7.5 to 10.0 at all times.}$ 

## $\mbox{(c)}$ Tin mud acid neutralization filtrate.

BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Minimum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of neutralized, dewatered tin mud pro- duced	
Lead	2.120	1.009
Cyanide (total)	1.464	0.606
Fluoride	176.600	100.400
Tin	1.918	1.110
Total suspended solids	206.900	98.420
pH	(1)	(1)

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

BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Minimum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin hydrox- ide washed	
Lead Cyanide (total)	5.020 3.466	2.391 1.434
Fluoride	418.400	237.900
Tin	4.542	2.630
Total suspended solids	490.100	233.100
pH	(1)	(1)

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

## (e) Spent electrowinning solution from new scrap.

## BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Minimum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode tin produced	
Lead	7.056	3.360
Cyanide (total)	4.872	2.016
Fluoride	588.000	334.300
Tin	6.384	3.696
Total suspended solids	688.800	327.600
pH	(1)	(1)

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

## (f) Spent electrowinning solution from municipal solid waste.

## BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Minimum for any 1 day	Maximum for monthly average	
	mg/kg (pounds per million pounds) of MSW scrap used as raw material		
Lead	0.050	0.024	
Cyanide (total)	0.035	0.014	
Fluoride	4.165	2.368	
Tin	0.045	0.026	
Total suspended solids	4.879	2.321	
pH	(1)	(1)	

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

(g) Tin hydroxide supernatant from scrap.

<sup>(</sup>d) Tin hydroxide wash.

BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from scrap	
Lead	23.370	11.130
Cyanide (total)	16.140	6.677
Fluoride	1,947.000	1,107.000
Tin	21.140	12.240
Total suspended solids	2,281.000	1,085.000
pH	(1)	(1)

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

## (h) Tin hydroxide supernatant from plating solutions and sludges.

### BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from plating solutions and sludges	
Lead	48.30	23.00
Cyanide (total)	33.35	13.80
Fluoride	4,025.00	2,289.00
Tin	43.70	25.30
Total suspended solids	4,715.00	2,243.00
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny l}}$  Within the range of 7.5 to 10.0 at all times.

### (i) Tin hydroxide filtrate.

## BPT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per millio pounds) of tin meta produced	
10.520	5.009 3.005
876.500	498.400
9.517	5.510
1,027.000	488.400
(1)	(1)
	for any 1 day mg/kg (pound pounds) o produced 10.520 7.263 876.500 9.517 1,027.000

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

#### §421.293 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

#### (a) Tin smelter SO<sub>2</sub> scrubber.

## BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of crude tapped tin produced	
Arsenic	12.790 2.575 11.040 3.495	5.703 1.196 5.611 2.024

### (b) Dealuminizing rinse.

## BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of dealuminized scrap produced	
Lead	0.010 0.007 1.225 0.013	0.005 0.003 0.697 0.008

### (c) Tin mud acid neutralization filtrate.

### BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of neutralized dewatered tin mud pro- duced	
Lead	1.413	0.656

BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Cyanide (total)	1.009 176.600 1.918	0.404 100.400 1.110

### (d) Tin hydroxide wash.

### BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin hydrox- ide washed	
Lead	3.347	1.554
Cyanide (total)	2.391	0.956
Fluoride	418.400	237.900
Tin	4.542	2.630

# (e) Spent electrowinning solution from new scrap.

# BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode tin produced	
Lead	4.704	2.184
Cyanide (total)	3.360	1.344
Fluoride	588.000	334.300
Tin	6.384	3.696

## $\begin{array}{ll} \hbox{(f)} & Spent & electrowinning & solution \\ from & municipal & solid & waste. \\ \end{array}$

## BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of MSW scrap used as raw material	
Lead	0.033 0.024 4.165 0.045	0.015 0.010 2.368 0.026

## (g) Tin hydroxide supernatant from scrap.

### BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from scrap	
Lead	15.580	7.233
Cyanide (total)	11.130	4.451
Fluoride	1,947.000	1,107.000
Tin	21.140	21.240

## (h) Tin hydroxide supernatant from plating solutions and sludges.

### BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from plating solutions and sludges	
Lead	32.20	14.95
Cyanide (total)	23.00	9.20
Fluoride	4,025.00	2,289.00
Tin	43.70	25.30

### (i) Tin hydroxide filtrate.

### BAT LIMITATIONS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o produced	ls per million f tin metal
Lead	7.012 5.009 876.500	3.256 2.004 498.400
Tin	9.517	5.510

### § 421.294 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Tin smelter SO<sub>2</sub> scrubber.

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of crude tapped tin produced	
Arsenic	12.790 2.575	5.703 1.196
Iron	11.040	5.611
Tin	3.495	2.024
Total suspended solids	138.000	110.400
pH	(1)	(1)

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

### (b) Dealuminizing rinse.

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of dealuminized scrap produced	
Lead	0.010	0.005
Cyanide (total)	0.007	0.003
Fluoride	1.225	0.697
Tin	0.013	0.008
Total suspended solids	0.525	0.420
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}$  Within the range of 7.5 to 10.0 at all times.

## (c) Tin mud acid neutralization filtrate. $\,$

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of neutralized dewatered tin mud pro- duced	
Lead Cyanide (total)	1.413 1.009	0.656 0.404
Fluoride	176.600	100.400
Tin	1.918	1.110
Total suspended solids	75.710	60.560
pH	(1)	(1)

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

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of tin hydrox- ide washed	
3.347	1.554
2.391	0.956
418.400	237.900
4.542	2.630
179.300	143.400
(1)	(¹)
	mg/kg (pound pounds) of ide washed 3.347 2.391 418.400 4.542 179.300

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

## $\begin{tabular}{ll} \end{tabular} \begin{tabular}{ll} \end{tabular} \beg$

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	nthly
mg/kg (pounds per m pounds) of cathod produced	
Lead	2.184 1.344
Fluoride 588.000 33	4.300
Tin 6.384	3.696
Total suspended solids 252.000 20	1.600
pH(1)	(1)

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

# $\begin{array}{ll} \hbox{(f)} & Spent & electrowinning & solution \\ from municipal solid waste. \end{array}$

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of used as ray	MSW scrap
Lead	0.033 0.024 4.165 0.045 1.785 (¹)	0.015 0.010 2.368 0.026 1.428

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

# (g) Tin hydroxide supernatant from scrap.

<sup>(</sup>d) Tin hydroxide wash.

### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of tin metal re- covered from scrap	
15.580 11.130 1 947 000	7.233 4.451 1.107.000
21.140 834.600 (¹)	12.240 667.700
	mg/kg (pound pounds) of covered fro 15.580 11.130 1,947.000 21.140

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

(h) Tin hydroxide supernatant from plating solutions and sludges.

#### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from plating solutions and sludges	
Lead	32.20	14.95
Cyanide (total)	23.00	9.20
Fluoride	4,025.00	2,289.00
Tin	43.70	25.30
Total suspended solids	1,725.00	1,380.00
pH	(1)	(1)

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

### (i) Tin hydroxide filtrate.

#### NSPS FOR THE SECONDARY TIN SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per millior pounds) of tin meta produced	
7.012 5.009 876.500 9.517 375.700	3.256 2.004 498.400 5.510 300.500
	mg/kg (pound pounds) oproduced  7.012 5.009 876.500 9.517

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

## § 421.295 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pol-

lutants in secondary tin process wastewater introduced into a POTW must not exceed the following values:

(a) Tin smelter SO<sub>2</sub> scrubber.

#### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) tapped tin p	of crude
ArsenicLeadIronTin	12.790 2.575 11.040 3.495	5.703 1.196 5.611 2.024

### (b) Dealuminizing rinse.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of dealuminized scrap produced	
Lead Cyanide (total) Fluoride Tin	0.010 0.007 1.225 0.013	0.005 0.003 0.697 0.008

## (c) Tin mud acid neutralization filtrate.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of neutralized dewatered tin mud pro- duced	
Lead	1.413 1.009 176.600 1.918	0.656 0.404 100.400 1.110

### (d) Tin hydroxide wash.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin hydrox- ide washed	
Lead Cyanide (total)	3.347 2.391	1.554 0.956
Fluoride	418.400	237.900

### PSES FOR THE SECONDARY TIN SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Tin	4.542	2.630

## (e) Spent electrowinning solution from new scrap.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode tin produced	
Lead	4.704	2.184
Cyanide (total)	3.360	1.344
Fluoride	588.000	334.300
<u>Tin</u>	6.384	3.696

# $\begin{array}{ll} \hbox{(f)} & Spent & electrowinning & solution \\ from & municipal & solid & waste. \end{array}$

#### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of MSW scrap used as raw material	
Lead	0.033 0.024 4.165 0.045	0.015 0.010 2.368 0.026

## (g) Tin hydroxide supernatant from scrap.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from scrap	
Lead	15.580 11.130 1,947.000 21.140	7.233 4.451 1,107.000 12.240

## (h) Tin hydroxide supernatant from plating solutions and sludges.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from plating solutions and sludges	
Lead	32.20	14.95
Cyanide (total)	23.00	9.20
Fluoride	4,025.00	2,289.00
Tin	43.70	25.30

### (i) Tin hydroxide filtrate.

### PSES FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal produced	
Lead Cyanide (total)	7.012 5.009 876.500	3.256 2.004 498.400
Tin	9.517	5.510

### §421.296 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary tin process wastewater introduced into a POTW shall not exceed the following values:

### (a) Tin smelter $SO_2$ scrubber.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) tapped tin p	of crude
Arsenic	12.790	5.703
Lead	2.575	1.196
Iron	11.040	5.611
Tin	3.495	2.024

### (b) Dealuminizing Rinse.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) dealuminize produced	of
Lead	0.010 0.007 1.225 0.013	0.005 0.003 0.697 0.008

## (c) Tin mud acid neutralization filtrate.

#### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million of pounds) of neutral- ized dewatered tin mud produced	
Lead	1.413 1.009 176.600 1.918	0.656 0.404 100.400 1.110

### (d) Tin hydroxide wash.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

TONO FOR THE GEOGRAPH THE GODONIEGORT		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin hydrox- ide washed	
Lead	3.347 2.391 418.400 4.542	1.554 0.956 237.900 2.630

## (e) Spent electrowinning solution from new scrap.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cathode tin produced	
Lead	4.704 3.360 588.000 6.384	2.184 1.344 334.300 3.696

## (f) Spent electrowinning solution from municipal solid waste.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of MSW scrap used as raw material	
Lead	0.033	0.015
Cyanide (total)	0.024	0.010
Fluoride	4.165	2.368
Tin	0.045	0.026

## (g) Tin hydroxide supernatant from scrap.

#### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from scrap	
Lead	15.580	7.233
Cyanide (total)	11.130	4.451
Fluoride	1,947.000	1,107.000
Tin	21.140	12.240

# (h) Tin hydroxide supernatant from plating solutions and ludges.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tin metal re- covered from plating solutions and sludges	
Lead	32.20	14.95
Cyanide (total)	23.00	9.20
Fluoride	4,025.00	2,289.00
Tin	43.70	25.30

### (i) Tin hydroxide filtrate.

### PSNS FOR THE SECONDARY TIN SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o produced	ls per million f tin metal
_ead	7.012	3.256
Cyanide (total)	5.009	2.004
Fluoride	876.500	498.400
Tin	9.517	5.510

#### §421.297 [Reserved]

# Subpart AB—Primary and Secondary Titanium Subcategory

SOURCE: 50 FR 38380, Sept. 20, 1985, unless otherwise noted.

#### § 421.300 Applicability: Description of the primary and secondary titanium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of titanium at primary and secondary titanium facilities. Facilities which only practice vacuum distillation for sponge purification and which do not practice electrolytic recovery of magnesium are exempt from regulations. All other primary and secondary titanium facilities are covered by these regulations.

#### §421.301 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §421.302 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Chlorination off-gas wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million f TiCl <sub>4</sub> pro-
Chromium (total)	0.412	0.168
Lead	0.393	0.187
Nickel	1.797	1.189
Titanium	0.880	0.384
Oil and grease	18.720	11.230
Total suspended solids	38.380	18.250

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY TITANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
pH	(1)	(1)

AA1Within the range of 7.5 to 10.0 at all times.

(b) Chlorination area-vent wet air pollution control.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million f TiCl <sub>4</sub> pro-
Chromium (total) Chromium (total) Lead Nickel Titanium Oil and grease Total suspended solids pH	0.412 0.458 0.437 1.997 0.978 20.800 42.640	0.168 0.187 0.208 1.321 0.426 12.480 20.280 (¹)

AA1Within the range of 7.5 to 10.0 at all times.

(c)  $TiCl_4$  handling wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of T	
Chromium (total)	0.082 0.079 0.359 0.176 3.740 7.667 (1)	0.034 0.037 0.237 0.077 2.244 3.647 (1)

AA1Within the range of 7.5 to 10.0 at all times.

(d) Reduction area wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of titanium pro- duced	
Chromium (total)	18.170	7.435
Lead	17.350	8 261

BPT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY TITANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Nickel	79.300 38.820	52.450 16.930
Oil and grease	826.100	495.600
Total suspended solids	1,693.000	805.400
pH	(1)	(1)

AA1Within the range of 7.5 to 10.0 at all times.

(e) Melt cell wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	9.352	3.826
Lead	8.927	4.251
Nickel	40.810	26.990
Titanium	19.980	8.714
Oil and grease	425.100	255.000
Total suspended solids	871.400	414.500
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny l}}$  Within the range of 7.5 to 10.0 at all times.

### $\mbox{\it (f)}$ Chlorine lique faction wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total) Lead Nickel Titanium Oil and grease Total suspended solids	130.900 125.000 571.300 279.700 5,951.000 12,200.000	53.560 59.510 377.900 122.000 3,571.000 5,702.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

## (g) Sodium reduction container reconditioning wash water.

BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	0.564 0.538 2.461 1.205 25.640 52.560	0.231 0.256 1.628 0.526 15.380 25.000

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

## (h) Chip crushing wet air pollution control.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	10.090 9.627 44.010 21.550 458.400	4.126 4.584 29.110 9.398 275.100
Total suspended solidspH	939.800 (¹)	447.000 (¹)

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

### (i) Acid leachate and rinse water.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	5.210	2.131
Lead	4.973	2.368
Nickel	22.730	15.040
Titanium	11.130	4.854
Oil and grease	236.800	142.100
Total suspended solids	485.400	230.900
pH	(1)	(1)

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

## (j) Sponge crushing and screening wet air pollution control.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	2.847	1.165
Lead	2.717	1,294
Nickel	12.420	8.217
Titanium	6.082	2.653
Oil and grease	129.400	77.640
Total suspended solids	265.300	126.200
pH	(1)	(1)

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

#### (k) Acid pickle and wash water.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum Maximum for any 1 day average	
	mg/kg (pounds per million pounds) of titanium pickled	
Chromium (total)	0.027 0.026 0.117	0.011 0.012 0.077
Titanium Oil and grease	0.057 1.220	0.025 0.732
Total suspended solidspH	2.501 (¹)	1.190 (¹)

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

### (l) Scrap milling wet air pollution control.

## BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of s	
Chromium (total)	0.995 0.950 4.341 2.125 45.220 92.700	0.407 0.452 2.871 0.927 27.130 44.090

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

#### (m) Scrap detergent wash water.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap washed	
Chromium (total)  Lead  Nickel  Titanium  Oil and grease  Total suspended solids	7.948 7.587 34.680 16.980 361.300 740.600	3.252 3.613 22.940 7.406 216.800 352.300
pH	(1)	(1)

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

### (n) Casting crucible wash water.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of ti	
Chromium (total)  Lead	0.210 0.200 0.916 0.448 9.540 19.560	0.086 0.095 0.606 0.196 5.724 9.302

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

### (o) Casting contact cooling water.

### BPT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of ti	
Chromium (total) Lead	321.100 306.500 1,401.000 685.900 14,590.000 29,920.000 (¹)	131.400 145.900 926.800 299.200 8,757.000 14,230.000

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

#### § 421.303 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

(a) Chlorination off-gas wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> produced	
Chromium (total)	0.346	0.140
Lead	0.262	0.122
Nickel	0.515	0.346
Titanium	0.496	0.215

(b) Chlorination area-vent wet air pollution control.

## BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> produced	
Chromium (total)	0.385 0.291 0.572 0.551	0.156 0.135 0.385 0.239

(c)  $TiCl_4$  handling wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> handled	
Chromium (total)	0.069 0.052 0.103 0.099	0.028 0.024 0.069 0.043

(d) Reduction area wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1	Maximum for monthly
	mg/kg (pound pounds) of duced	average s per million titanium pro-
Chromium (total)	1.528 1.156 2.272 2.189	0.620 0.537 1.528 0.950

(e) Melt cell wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.787 0.595 1.169 1.127	0.319 0.276 0.787 0.489

(f) Chlorine liquefaction wet air pollution control.

## BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	11.010 8.332 16.370 15.770	4.463 3.868 11.010 6.844

(g) Sodium reduction container reconditioning wash water.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total) Lead Nickel	0.474 0.359 0.705	0.192 0.167 0.474

BAT LIMITATIONS FOR THE PRIMARY AND SEC-ONDARY TITANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Titanium	0.679	0.295

## (h) Chip crushing wet air pollution control. $\label{eq:control}$

## BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.848	0.344
Lead	0.642	0.298
Nickel	1.261	0.848
Titanium	1.215	0.527

### (i) Acid leachate and rinse water.

## BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	4.381	1.776
Lead	3.315	1.539
Nickel	6.512	4.381
Titanium	6.275	2.723

# (j) Sponge crushing and screening wet air pollution control.

## BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)LeadNickel	0.239 0.181 0.356 0.343	0.097 0.084 0.239 0.149

### (k) Acid pickle and wash water.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pickled	
Chromium (total)	0.023	0.009
Lead	0.017	0.008
Nickel	0.034	0.023
Titanium	0.032	0.014

## (l) Scrap milling wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap milled	
Chromium (total)	0.084 0.064 0.125 0.120	0.034 0.030 0.084 0.052

### (m) Scrap detergent wash water.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap washed	
Chromium (total)	6.684	2.710
Lead	5.058	2.348
Nickel	9.935	6.684
Titanium	9.574	4.155

### (n) Casting crucible wash water.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of ti	
Chromium (total)	0.176 0.134 0.262 0.253	0.072 0.062 0.176 0.110

### (o) Casting contact cooling water.

### BAT LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total)	27.000	10.950
Lead	20.430	9.486
Nickel	40.140	27.000
Titanium	38.68	16.78

### § 421.304 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Chlorination off-gas wet air pollution control.

NSPS LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million f TiCl <sub>4</sub> pro-
Ob	0.040	0.440
Chromium (total)	0.346	0.140
Lead	0.262	0.122
Nickel	0.515	0.346
Titanium	0.496	0.215
Oil and grease	9.360	9.360
Total suspended solids	14.040	11.230
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

(b) Chlorination area-vent wet air pollution control.

NSPS LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	s per million TiCl <sub>4</sub> pro-
Chromium (total)	0.385 0.291 0.572 0.551 10.400 15.600	0.156 0.135 0.385 0.239 10.400 12.480

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

(c)  $TiCl_4$  handling wet air pollution control.

NSPS LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of T	
Chromium (total)	0.069 0.052 0.103	0.028 0.024 0.069
Titanium Oil and grease	0.099 1.870	0.043 1.870
Total suspended solidspH	2.805 (¹)	2.244 (¹)

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

(d) Reduction area wet air pollution control.

NSPS LIMITATIONS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	1.528	0.620
Lead	1.156	0.537
Nickel	2.272	1.528
Titanium	2.189	0.950
Oil and grease	41.300	41.300
Total suspended solids	61.950	49.560
pH	(1)	(1)

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

(e) Melt cell wet air pollution control.

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

Pollutant or pollutant property for control of the pollu		
Chromium (total)	ximum any 1 day	Maximum for monthly average
Lead		ls per million titanium pro-
Oil and grease  Total suspended solids  pH	0.787 0.595 1.169 1.127 21.260 31.890	0.319 0.276 0.787 0.489 21.260 25.510

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

(f) Chlorine liquefaction wet air pollution control.

§ 421.304

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	d per million titanium pro-
Chromium (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Titanium	0.000	0.000
Oil and grease	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

## (g) Sodium reduction container reconditioning wash.

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	d per million titanium pro-
Chromium (total)	0.474	0.192
Lead	0.359	0.192
Nickel	0.705	0.474
Titanium	0.679	0.295
Oil and grease	12.820	12.820
Total suspended solids	19.230	15.380
pH	(1)	(1)

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

## $\mbox{(h)}$ Chip crushing wet air pollution control.

NSPS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	d per million titanium pro-
Chromium (total)	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	d per million titanium pro-
Chromium (total)	4.381	1.776
Lead	3.315	1.539
Nickel	6.512	4.381
Titanium	6.275	2.723
Oil and grease	118.400	118.400
Total suspended solids	177.600	142.100
pH	(1)	(1)

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

## (j) Sponge crushing and screening wet air pollution control.

### NSPS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Titanium	0.000	0.000
Oil and grease	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

### (k) Acid pickle and wash water.

### NSPS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pickled	
Chromium (total)	0.023	0.009
Lead	0.017	0.008
Nickel	0.034	0.023
Titanium	0.032	0.014
Oil and grease	0.610	0.610
Total suspended solids	0.915	0.732
pH	(1)	(1)

 $<sup>^{\</sup>scriptscriptstyle 1}\!$  Within the range of 7.5 to 10.0 at all times.

## (l) Scrap milling wet air pollution control.

<sup>(</sup>i) Acid leachate and rinse water.

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

-		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap milled	
Chromium (total)  Lead	0.000 0.000 0.000 0.000 0.000 (¹)	0.000 0.000 0.000 0.000 0.000 0.000 (¹)

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

#### (m) Scrap detergent wash water.

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap washed	
Chromium (total)  Lead  Nickel  Titanium  Oil and grease  Total suspended solids  pH	6.684 5.058 9.935 9.574 180.600 271.000	2.710 2.348 6.684 4.155 180.600 216.000

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{ Within the range of 7.5 to 10.0 at all times.}$ 

### (n) Casting crucible wash water.

NSPS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total)	0.176	0.072
Lead	0.134	0.062
Nickel	0.262	0.176
Titanium	0.253	0.110
Oil and grease	4.770	4.770
Total suspended solids	7.155	5.724
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny I}}$  Within the range of 7.5 to 10.0 at all times.

NSPS FOR THE PRIMARY AND SECONDARY
TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total)  Lead  Nickel  Titanium  Oil and grease  Total suspended solids	27.000 20.430 40.140 38.680 729.700 1.095.000	10.950 9.486 27.000 16.780 729.700 875.700
pH	(1)	(1)

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

## §421.305 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in primary and secondary titanium process wastewater introduced into a POTW must not exceed the following values:

(a) Chlorination off-gas wet air pollution control.

PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> pro- duced	
Chromium (total)	0.346	0.140
Lead	0.262	0.122
Nickel	0.515	0.346
Titanium	0.496	0.215

(b) Chlorination Area-vent wet air pollution control.

<sup>(</sup>o) Casting contact cooling water.

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> pro- duced	
Chromium (total)	0.385	0.156
Lead	0.291	0.135
Nickel	0.572	0.385
Titanium	0.551	0.239

### (c) $TiCl_4$ handling wet air pollution control.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> handled	
Chromium (total)	0.069 0.052 0.103 0.099	0.028 0.024 0.069 0.043

### (d) Reduction area wet air pollution control.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	1.528 1.156 2.272 2.189	0.620 0.537 1.528 0.950

### (e) Melt cell wet air pollution control.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.787 0.595 1.169	0.319 0.276 0.787

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Titanium	1.127	0.489

## (f) Chlorine liquefaction wet air pollution control.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	11.010	4.463
Lead	8.332	3.868
Nickel	16.370	11.010
Titanium	15.770	6.844

## (g) Sodium reduction container reconditioning wash water.

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million titanium pro-
Chromium (total)	0.474 0.359 0.705 0.679	0.192 0.167 0.474 0.295

## (h) Chip crushing wet air pollution control.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.848 0.642 1.261 1.215	0.344 0.298 0.848 0.527

#### (i) Acid leachate and rinse water.

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	4.381	1.776
Lead	3.315	1.539
Nickel	6.512	4.381
Titanium	6.275	2.723

### (j) Sponge crushing and screening wet air pollution control.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.239 0.181 0.356 0.343	0.097 0.084 0.239 0.149

### (k) Acid pickle and wash water.

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pickled	
Chromium (total)	0.023 0.017 0.034 0.032	0.009 0.008 0.023 0.014

### (l) Scrap milling wet air pollution control.

# PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap milled	
Chromium (total)	0.084 0.064 0.125 0.120	0.034 0.030 0.084 0.052

### (m) Scrap detergent wash water.

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap washed	
Chromium (total)	6.684 5.058 9.935 9.574	2.710 2.348 6.684 4.155

### (n) Casting crucible wash water.

### PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of titanium cast	
0.176 0.134 0.262 0.253	0.072 0.062 0.176 0.110
	for any 1 day mg/kg (pound pounds) of ti 0.176 0.134

### (o) Casting contact cooling water.

## PSES FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total) Lead Nickel	27.000 20.430 40.140	10.950 9.486 27.000
Titanium	38.680	16.780

### §421.306 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary and secondary titanium process wastewater introduced into a POTW shall not exceed the following values:

(a) Chlorination off-gas wet air pollution control.

### PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million f TiCl <sub>4</sub> pro-
Chromium (total)	0.346 0.262 0.515 0.496	0.140 0.122 0.346 0.215

## (b) Chlorination area-vent wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> pro- duced	
Chromium (total)	0.385	0.156
Lead	0.291	0.135
Nickel	0.572	0.385
Titanium	0.551	0.239

## (c) $TiCl_4$ handling wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of TiCl <sub>4</sub> handled	
Chromium (total)	0.069 0.052 0.103 0.099	0.028 0.024 0.069 0.043

### (d) Reduction area wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	1.528 1.156 2.272	0.620 0.537 1.528

### PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Titanium	2.189	0.950

## (e) Melt cell wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.787	0.319
Lead	0.595	0.276
Nickel	1.169	0.787
Titanium	1.127	0.489

### $\mbox{\it (f)}$ Chlorine lique faction wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

## (g) Sodium reduction container reconditioning wash water.

### PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.474 0.359 0.705 0.679	0.192 0.167 0.474 0.295

## $\mbox{(h)}$ Chip crushing wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

#### (i) Acid leachate and rinse water.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	4.381 3.315 6.512 6.275	1.776 1.539 4.381 2.723

# $(\mbox{\scriptsize j})$ Sponge crushing and screening wet air pollution control.

### PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pro- duced	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

### (k) Acid pickle and wash water.

### PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium pickled	
Chromium (total)	0.023	0.009
Lead	0.017	0.008
Nickel	0.034	0.023
Titanium	0.032	0.014

### (l) Scrap milling wet air pollution control.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap milled	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

### (m) Scrap detergent wash water.

## PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of scrap washed	
Chromium (total)	6.684	2.710
Lead	5.058	2.348
Nickel	9.935	6.684
Titanium	9.574	4.155

### (n) Casting crucible wash water.

### PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total)	0.176	0.072
Lead	0.134	0.062
Nickel	0.262	0.176
Titanium	0.253	0.110

### (o) Casting contact cooling water.

# PSNS FOR THE PRIMARY AND SECONDARY TITANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total) Lead Nickel Titanium	27.000 20.430 40.140 38.680	10.950 9.486 27.000 16.780
Harman	38.880	16.780

#### §421.307 [Reserved]

# Subpart AC—Secondary Tungsten and Cobalt Subcategory

Source: 50 FR 38386, Sept. 20, 1985, unless otherwise noted.

# §421.310 Applicability: Description of the secondary tungsten and cobalt subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of tungsten or cobalt at secondary tungsten and cobalt facilities processing tungsten or tungsten carbide scrap raw materials.

#### §421.311 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §421.312 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Tungsten detergent wash and rinse.

BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of scrap wash	of tungsten
Copper Nickel Ammonia (as N) Cobalt Tungsten Oil and grease Total suspended solids pH	0.371 0.374 25.990 0.768 1.357 3.900 7.995 (1)	0.195 0.248 11.430 0.337 0.542 2.340 3.803 (1)

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

#### (b) Tungsten leaching acid.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	ls per million of tungsten
Copper Nickel Ammonia (as N) Cobalt Tungsten Oil and grease Total suspended solids	4.885 4.937 342.700 10.130 17.890 51.420 105.400	2.571 3.265 150.700 4.448 7.147 30.850 50.140
pH	(1)	(1)

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

(c) Tungsten post-leaching wash and rinse.

BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	ls per million of tungsten
Copper Nickel Ammonia (as N) Cobalt Tungsten Oil and grease Total suspended solids	9.772 9.875 685.600 20.263 35.800 102.900 210.900	5.143 6.532 301.400 8.897 14.300 61.720
pH	(1)	(1)

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

### (d) Synthetic scheelite filtrate.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of scheelite pr	of synthetic
Copper	31.660	16.660
Nickel	31.990	21.160
Ammonia (as N)	2,221.000	976.300
Cobalt	65.644	28.824
Tungsten	116.000	46.320
Oil and grease	333.200	200.000
Total suspended solids	683.100	324.900
pH	(1)	(1)

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

(e) Tungsten carbide leaching wet air pollution control.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) c carbide scra	of tungsten
Copper	3.327 3.362 233.400 6.899 12.190 35.020 71.790	1.751 2.224 102.600 3.029 4.868 21.010 34.150

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

### (f) Tungsten carbide wash water.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) c carbide pro-	of tungsten
Copper Nickel Ammonia (as N) Cobalt Tungsten Oil and grease Total suspended solids PH	15.830 16.000 1,111.000 32.832 58.000 166.700 341.700	8.333 10.580 488.300 14.416 23.170 100.000 162.500

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

## $\mbox{(g)}$ Cobalt sludge leaching wet air pollution control.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million cobalt pro- om cobalt
Copper	67.990	35.780
Nickel	68.700	45.440
Ammonia (as N)	4,770.000	2.097.000
Cobalt	140.977	61.901
Tungsten	249.000	99.470
Oil and grease	715.600	429.400
Total suspended solids	1,467.000	697.700
pH	(1)	(1)

 $<sup>^{\</sup>rm 1}\,\mbox{Within}$  the range of 7.5 to 10.0 at all times.

### (h) Crystallization decant.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper	79.140	41.650
Nickel	79.970	52.900
Ammonia (as N)	5,552.000	2,441.000
Cobalt	164.101	72.055
Tungsten	289.900	115.800
Oil and grease	833.000	499.800
Total suspended solids	1,708.000	812.200
pH	(1)	(1)

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

### (i) Acid wash decant.

## BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper	36.220 36.600 2,541.000 75.104 132.700	19.060 24.210 1,117.000 32.977 52.990
Oil and grease Total suspended solids	381.300 781.600	228.800 371.700 (¹)

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

### (j) Cobalt hydroxide filtrate.

## BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper Nickel	107.600 108.800 7,551.000 223.189 394.300 1,133.000 2,323.000	56.650 71.940 3,320.000 97.999 157.500 679.800 1,105.000
рН	(1)	(1)

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

### (k) Cobalt hydroxide filter cake wash.

§ 421.313

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper	207.200	109.100
Nickel	209.400	138.500
Ammonia (as N)	14,530.000	6,389.000
Cobalt	429.598	188.631
Tungsten	758.900	303.100
Oil and grease	2,181.000	1,309.000
Total suspended solids	4,471.000	2,126.000
pH	(1)	(1)

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

 $[50\ FR\ 38386,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31713,\ 31714,\ Aug.\ 3,\ 1990]$ 

#### § 421.313 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Tungsten detergent wash and rinse.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per millior pounds) of tungster scrap washed	
0.250	0.119
0.107	0.072
25.990	11.430
0.538	0.236
0.679	0.302
	mg/kg (pound pounds) c scrap wash  0.250 0.107 25.990 0.538

### (b) Tungsten leaching acid.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	ls per million of tungsten
Copper	3.291 1.414 342.700 7.096 8.947	1.569 0.951 150.700 3.111 3.985

### (c) Tungsten post-leaching wash and rinse.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tungster produced	
Copper Nickel Ammonia (as N) Cobalt Tungsten	6.583 2.829 685.600 14.194 17.900	3.137 1.903 301.400 6.223 7.972

### (d) Synthetic scheelite filtrate.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of synthetic scheelite produced	
Copper Nickel Ammonia (as N) Cobalt Tungsten	21.330 9.164 2,221.000 45.984 57.980	10.170 6.165 976.300 20.160 25.820

## (e) Tungsten carbide leaching wet air pollution control.

## BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millio pounds) of tungste carbide scrap leached	
Copper	2.241	1.068
Nickel	0.963	0.648

#### BAT LIMITATIONS FOR THE SECONDARY TUNG-STEN AND COBALT SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	233.400	102.600
Cobalt	4.833	2.119
Tungsten	6.093	2.714

### (f) Tungsten carbide wash water.

## BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten carbide produced	
Copper	10.670 4.583 1,111.000 22.999 29.000	5.083 3.083 488.300 10.083 12.920

## (g) Cobalt sludge leaching wet air pollution control.

## BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million cobalt pro- om cobalt
Copper	45.80 19.68 4,770.00 98.756 124.50	21.83 13.24 2,097.00 43.295 55.46

### (h) Crystallization decant.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
CopperNickel	53,310 22,910	25.410 15.410
Ammonia (as N)	5,552.000	2.441.000
Cobalt	114.954	50.397
Tungsten	144.900	64.560

### (i) Acid wash decant.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper	24.400	11.630
Nickel	10.490	7.053
Ammonia (as N)	2,541.000	1,117.000
Cobalt	52.611	23.065
Tungsten	66.340	29.550

### (j) Cobalt hydroxide filtrate.

### BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper	72.510 31.160 7,551.000 156.346	34.560 20.960 3,320.000 68.543 87.800
Tungsten	197.100	87.800

### (k) Cobalt hydroxide filter cake wash.

## BAT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of cobalt pro- duced	
Copper	139.600	66.510
Nickel	59.970	40.340
Ammonia (as N)	14,530.000	6,389.000
Cobalt	300.094	131.932
Tungsten	379.400	169.000

[50 FR 38386, Sept. 20, 1985, as amended at 55 FR 31714, 31715, Aug. 3, 1990]

### § 421.314 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Tungsten detergent wash and rinse.

## NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten scrap washed	
Conner	0.250	0.119
Copper	1	
Nickel	0.107	0.072
Ammonia (as N)	25.990	11.430
Cobalt	0.538	0.236
Tungsten	0.679	0.302
Oil and grease	1.950	1.950
Total suspended solids	2.925	2.340
pH	(1)	(1)

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

### (b) Tungsten leaching acid.

## NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of produced	s per million of tungsten
Copper	3.291	1.569
Nickel	1.414	0.951
Ammonia (as N)	342.700	150.700
Cobalt	7.096	3.111
Tungsten	8.947	3.985
Oil and grease	25.710	25.710
Total suspended solids	38.570	30.850
pH	(1)	(1)

 $<sup>^{\</sup>scriptscriptstyle 1}\!$  Within the range of 7.5 to 10.0 at all times.

### (c) Tungsten post-leaching wash and rinse.

NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of tungster produced	
Copper	6.583	3.137
Nickel	2.829	1.903
Ammonia (as N)	685.600	301.400
Tungsten	17.900	7.972
Cobalt	14.194	6.223
Oil and grease	51.430	51.430
Total suspended solids	77.150	61.720
pH	(1)	(1)

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

### (d) Synthetic scheelite filtrate.

## NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of synthetic scheelite produced	
Copper	21.330 9.164 2,221.000 45.984 57.980 166.600 249.900	10.170 6.165 976.300 20.160 25.820 166.600 199.900
pH	(1)	(1)

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

# (e) Tungsten carbide leaching wet air pollution control.

# NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten carbide scrap leached	
Copper	2.241 0.963 233.400 4.833 6.093 17.510 26.270	1.068 0.648 102.600 2.119 2.714 17.510 21.010
pH	26.270	21.010 (¹)

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

### $\ \, \hbox{ (f) Tungsten carbide wash water.}$

### NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pound pounds) of carbide pro-	of tungsten
10.670	5.083
4.583	3.083
1,111.000	488.300
22.999	10.083
29.000	12.920
83.330	83.330
125.000	100.000
(1)	(1)
	for any 1 day  mg/kg (pound pounds) c carbide pro  10.670 4.583 1,111.000 22.999 29.000 83.330 125.000

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

(g) Cobalt sludge leaching wet air pollution control.

### NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced from cobalt sludge	
Copper	45.80	21.83
Nickel	19.68	13.24
Ammonia (as N)	4,770.00	2,097.00
Cobalt	98.756	43.295
Tungsten	124.50	55.46
Oil and grease	357.80	357.80
Total suspended solids	536.70	429.40
pH	(1)	(1)

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

#### (h) Crystallization decant.

## NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper	53.310	25.410
Nickel	22.910	15.410
Ammonia (as N)	5,552.000	2,441.000
Cobalt	114.954	50.397
Tungsten	144.900	64.560
Oil and grease	416.500	416.500
Total suspended solids	624.800	499.800
pH	(1)	(1)

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

#### (i) Acid wash decant.

## NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper Nickel	24.400 10.490 2,541.000 52.611 66.340 190.600 285.900	11.630 7.053 1,117.000 23.065 29.550 190.600 228.700
pH	(1)	(1)

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

### (j) Cobalt hydroxide filtrate.

NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
Copper	72.510 31.160	34.560 20.960
Ammonia (as N)	7,551.000	3,320.000
Cobalt	156.346	68.543
Tungsten	197.100	87.800
Oil and grease	566.500	566.500
Total suspended solids	849.700	679.800
pH	(1)	(1)

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

### (k) Cobalt hydroxide filter cake wash.

### NSPS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) of duced	ls per million cobalt pro-
0	400.000	00.540
Copper	139.600	66.510
Nickel	59.970	40.340
Ammonia (as N)	14,530.000	6,389.000
Cobalt	300.094	131.932
Tungsten	379.400	169.000
Oil and grease	1,090.000	1,090.000
Total suspended solids	1,636,000	1,308.000
pH	(1)	(1)

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

 $[50\ FR\ 38386,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31715,\ 31716,\ Aug.\ 3,\ 1990]$ 

### §421.315 Pretreatment standards for existing sources.

Except as provided in 40 CFR 403.7, any existing source subject to this subpart which introduces polutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for existing sources. The mass of wastewater pollutants in secondary tungsten and cobalt process wastewater introduced into a POTW shall not exceed the following values:

(a) Tungsten detergent wash and rinse.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten scrap washed	
Copper	0.250 0.107 25.990 0.538 0.679	0.119 0.072 11.430 0.236 0.302

### (b) Tungsten leaching acid.

## PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten produced	
Copper	3.291 1.414 342.700 7.096 8.947	1.569 0.951 150.700 3.111 3.985

### (c) Tungsten post-leaching wash and rinse.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten produced	
Copper	6.583 2.829 685.600	3.137 1.903 301.400
Cobalt Tungsten	14.194 17.900	6.223 7.972

### (d) Synthetic scheelite filtrate.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of synthetic scheelite produced	
Copper	21.330 9.164 2,221.000	10.170 6.165 976.300

# PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
CobaltTungsten	45.984 57.980	20.160 25.820

## (e) Tungsten carbide leaching wet air pollution control.

## PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten carbide scrap	
Copper Nickel Ammonia (as N) Cobalt	2.241 0.963 233.400 4.833	1.068 0.648 102.600 2.119
Tungsten	6.093	2.714

### (f) Tungsten carbide wash water.

## PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten carbide produced	
Copper	10.670 4.583 1,111.000 22.999 29.000	5.083 3.083 488.300 10.083 12.920

## (g) Cobalt sludge leaching wet air pollution control.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced from cobalt sludge	
Copper	45.800	21.830
Nickel	19.680	13.240
Ammonia (as N)	4,770.000	2,097.000
Cobalt	98.756	43.295
Tungsten	124.500	55.460

### (h) Crystallization decant.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper	53.310 22.910 5,552.000 114.954 144.9	25.410 15.410 2,441.000 50.397 64.56

#### (i) Acid wash decant.

## PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper	24.400	11.630
Nickel	10.490	7.053
Ammonia (as N)	2,541.000	1,117.000
Cobalt	52.611	23.065
Tungsten	66.34	29.55

### (j) Cobalt hydroxide filtrate.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

005/12/ 0050///200///		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper	72.510 31.160 7,551.000 156.346 197.1	34.560 20.960 3,320.000 68.543 87.8

### (k) Cobalt hydroxide filter cake wash.

### PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

002/12/ 0020	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of cobalt pro duced	
Copper	139.600	66.510
Nickel	59.970	40.340

## PSES FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	14,530.000 300.094 379.400	6,389.000 131.932 169.000

[50 FR 38386, Sept. 20, 1985, as amended at 55 FR 31717, 31718, Aug. 3, 1990]

### §421.316 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary tungsten and cobalt process wastewater introduced into a POTW shall not exceed the following values:

### (a) Tungsten detergent wash and rinse.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten scrap washed	
Copper Nickel Ammonia (as N) Cobalt Tungsten	0.250 0.107 25.990 0.538 0.679	0.119 0.072 11.430 0.236 0.302

### (b) Tungsten leaching acid.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten produced	
Copper	3.291	1.569
Nickel	1.414	0.951
Ammonia (as N)	342.700	150.700
Cobalt	7.096	3.111

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Tungsten	8.947	3.985

## (c) Tungsten post-leaching wash and rinse.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of tungsten produced	
6.583 2.829	3.137 1.903
685.600	301.400
14.194	6.223
17.900	7.792
	mg/kg (pound pounds) of produced  6.583 2.829 685.600 14.194

### (d) Synthetic scheelite filtrate.

## PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of synthetic scheelite produced	
Copper	21.330	10.170
Nickel	9.164	6.165
Ammonia (as N)	2,221.000	976.300
Cobalt	45.984	20.160
Tungsten	57.980	25.820

# (e) Tungsten carbide leaching wet air pollution control. $\,$

## PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten carbide scrap leached	
Copper Nickel Ammonia (as N)	2.241 0.963 233.400	1.068 0.648 102.600
Cobalt Tungsten	4.833 6.093	2.119 2.714

### (f) Tungsten carbide wash water.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten carbide produced	
Copper Nickel	10.670 4.583 1,111.000 22.999 29.000	5.083 3.083 488.300 10.083 12.920

## (g) Cobalt sludge leaching wet air pollution control.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced from cobalt sludge	
Copper	45.800	21.830
Nickel	19.680	13.240
Ammonia (as N)	4,770.000	2,097.000
Cobalt	98.756	43.295
Tungsten	124.500	55.460

### (h) Crystallization decant.

## PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper Nickel	53.310 22.910 5,552,000 114.954 144.900	25.410 15.410 2,441.000 50.397 64.560

### (i) Acid wash decant.

## PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper	24.400	11.630
Nickel	10.490	7.053

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	2,541.000 52.611 66.340	1,117.000 23.065 29.550

### (j) Cobalt hydroxide filtrate.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of cobalt pro- duced	
72.510	34.560
31.160	20.960
7,551.000	3,320.000
156.346	68.543
197.100	87.800
	mg/kg (pound pounds) of duced  72.510 31.160 7,551.000 156.346

### (k) Cobalt hydroxide filter cake wash.

### PSNS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

OOBAET OODOATEGORT		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced	
Copper	139.600 59.970 14,530.000 300.094 379.400	66.510 40.430 6,389.000 131.932 169.000

 $[50\ FR\ 38386,\ Sept.\ 20,\ 1985,\ as\ amended\ at\ 55\ FR\ 31718,\ 31719,\ Aug.\ 3,\ 1990]$ 

### §421.317 [Reserved]

# Subpart AD—Secondary Uranium Subcategory

Source: 50 FR 38392, Sept. 20, 1985, unless otherwise noted.

# § 421.320 Applicability: Description of the secondary uranium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of uranium (including

depleted uranium) by secondary uranium facilities.

#### §421.321 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §421.322 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practiacable technology currently available:

#### (a) Refinery sump filtrate.

### BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of uranium processed in the refin- ery	
Chromium	32.270	13.200
Copper	139.300	73.340
Nickel	140.800	93.140
Fluoride	2,567.000	1,459.000
Total suspended solids	3,007.000	1,430.000
pH	(1)	(1)

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

#### (b) Slag leach reslurry.

## BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	2.009	0.822
Copper	8.675	4.566
Nickel	8.767	5.799
Fluoride	159.800	90.860
Total suspended solids	187.200	89.040
pH	(1)	(1)

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

(c) Solvent extraction raffinate fil-

BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	2.802	1.146
Copper	12.100	6.369
Nickel	12.230	8.089
Fluoride	222.900	126.700
Total suspended solids	261.100	124.200
pH	(1)	(1)

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

(d) Digestion wet air pollution control.

BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Nickel	0.000	0.000
Fluoride	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

## (e) Evaporation and denitration wet air pollution control.

BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tri- oxide produced	
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Nickel	0.000	0.000
Fluoride	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

 $\begin{tabular}{ll} (f) & Hydrofluorination alkaline scrubber. \end{tabular}$ 

BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.009	0.004
Copper	0.038	0.020
Nickel	0.038	0.025
Fluoride	0.700	0.398
Total suspended solids	0.820	0.390
pH	(1)	(1)

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

### (g) Hydrofluorination water scrubber.

## BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.000 0.000 0.000 0.000 0.000 (1)	0.000 0.000 0.000 0.000 0.000 (1)

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

### (h) Magnesium reduction and casting floor wash.

## BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium produced by magne- sium reduction	
Chromium (total)	0.013	0.005
Copper	0.057	0.030
Nickel	0.058	0.038
Fluoride	1.054	0.599
Total suspended solids	1.234	0.587
pH	(1)	(1)

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

<sup>(</sup>i) Laundry wastewater.

### BPT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) produced sium reduct	of uranium by magne-
Chromium (total)	0.084 0.365 0.369 6.720 7.872 (¹)	0.035 0.192 0.244 3.821 3.744 (¹)

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

#### § 421.323 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

### (a) Refinery sump filtrate.

# BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	27.14 93.88 40.34 2,567.00	11.00 44.74 27.14 1,459.00

### (b) Slag leach reslurry.

### BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of uranium processed in the refin- ery	
Chromium (total)	1.689 5.844	0.685 2.785

## BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Nickel	2.511 159.800	1.689 90.860

### (c) Solvent extraction raffinate filtrate.

### BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of uranium in the refin-
Chromium (total)	2.357 8.152 3.503 222.900	0.955 3.885 2.357 126.700

### (d) Digestion wet air pollution control

### BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

## (e) Evaporation and denitration wet air pollution control.

### BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tri- oxide produced	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

(f) Hydrofluorination alkaline scrubber.

### BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property for any 1 day for month average  mg/kg (pounds per millio pounds) of uranium ter rafluoride produced  Chromium (total)			
pounds) of uranium terraffuoride produced	Pollutant or pollutant property	for any 1	Maximum for monthly average
Copper 0.026 0.0		mg/kg (pounds per millior pounds) of uranium tet rafluoride produced	
	Chromium (total)	0.007	0.003
Nickel 0.011 0.00	Copper	0.026	0.012
	Nickel	0.011	0.007
Fluoride 0.700 0.39	Fluoride	0.700	0.398

### (g) Hydrofluorination water scrubber.

### BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Nickel	0.000	0.000
Fluoride	0.000	0.000

## (h) Magnesium reduction and casting floor wash.

## BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per milli pounds) of uraniu produced by magn sium reduction	
Chromium (total)	0.011	0.005
Copper	0.039	0.018
Nickel	0.017	0.011
Fluoride	1.054	0.599

### (i) Laundry wastewater.

### 40 CFR Ch. I (7-1-98 Edition)

## BAT LIMITATIONS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millio pounds) of uraniu produced by magn sium reduction	
Chromium (total)	0.036 0.123 0.053	0.014 0.059 0.036
Fluoride	3.360	1.910

### §421.324 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

### (a) Refinery sump filtrate.

## NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	1	ls per million of uranium in the refin-
Chromium (total)	27.14 93.88	11.00 44.74
Copper	40.34	27.14
Fluoride	2,567.00	1.459.00
Total suspended solids	1,100.00	880.10
pH	(1)	(1)

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

### (b) Slag leach reslurry.

## NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per mil pounds) of uran processed in the re ery	
Chromium (total)	1.689 5.844 2.511 159.800 68.490	0.685 2.785 1.689 90.860 54.790

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

(c) Solvent extraction raffinate filtrate.

NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of uranium in the refin-
Chromium (total)	2.357	0.955
Copper	8.152	3.885
Nickel	3.503	2.357
Fluoride	222.900	126.700
Total suspended solids	95.540	76.430
pH	( <sup>1</sup> )	(¹)

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

(d) Digestion wet air pollution control.

NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Nickel	0.000	0.000
Fluoride	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

### (e) Evaporation and denitration wet air pollution control $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($

NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tri- oxide produced	
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Nickel	0.000	0.000
Fluoride	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

(f) Hydrofluorination alkaline scrubber.

NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.007 0.026 0.011 0.700 0.300 (1)	0.003 0.012 0.007 0.398 0.240 (¹)

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

#### (g) Hydrofluorination water scrubber.

### NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.000	0.000
Copper	0.000	0.000
Nickel	0.000	0.000
Fluoride	0.000	0.000
Total suspended solids	0.000	0.000
pH	(1)	(1)

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

### (h) Magnesium reduction and casting floor wash.

NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium produced by magne- sium reduction	
Chromium (total)	0.011 0.039 0.017	0.005 0.018 0.011
Fluoride	1.054 0.452	0.599 0.361
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

<sup>(</sup>i) Laundry wastewater.

## NSPS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium produced by magne- sium reduction	
Chromium (total)	0.036 0.123 0.053 3.360 1.440 (1)	0.014 0.059 0.036 1.910 1.152 (¹)

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

#### § 421.325 [Reserved]

### §421.326 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in secondary uranium process wastewater introduced into a POTW shall not exceed the following values:

### (a) Refinery sump filtrate.

### PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	27.14 93.88 40.34 2,567.00	11.00 44.74 27.14 1,459.00

### (b) Slag leach reslurry.

## PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day Maximum for month for month average mg/kg (pounds per million pounds) of uranium processed in the refinery	
Chromium (total)	1.689	0.685

### PSNS FOR THE SECONDARY URANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Copper	5.844	2.785
Nickel	2.511	1.689
Fluoride	159.800	90.860

### (c) Solvent extraction raffinate filtrate.

### PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property   for any 1   for month average			
pounds   of uraniur   processed in the refir   ery	Pollutant or pollutant property	for any 1	Maximum for monthly average
Copper         8.152         3.8           Nickel         3.503         2.3		mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Fluoride	Copper	8.152	0.955 3.885 2.357
	Fluoride	222.900	126.700

### (d) Digestion wet air pollution control.

## PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium processed in the refin- ery	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

## (e) Evaporation and denitration wet air pollution control.

## PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of uranium tri- oxide produced	
0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
	mg/kg (pound pounds) of oxide production 0.000 0.000 0.000

### (f) Hydrofluorination alkaline scrubber

PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.007 0.026 0.011 0.700	0.003 0.012 0.007 0.398

#### (g) Hydrofluorination water scrubber.

### PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tet- rafluoride produced	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

### (h) Magnesium reduction and casting floor wash.

### PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium tri- oxide produced	
Chromium (total)	0.011 0.039 0.017 1.054	0.005 0.018 0.011 0.599

### (i) Laundry wastewater.

## PSNS FOR THE SECONDARY URANIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of uranium produced by magne- sium reduction	
Chromium (total)	0.036	0.014

### PSNS FOR THE SECONDARY URANIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Copper Nickel	0.123 0.053 3.360	0.059 0.036 1.910

#### §421.327 [Reserved]

# Subpart AE—Primary Zirconium and Hafnium Subcategory

SOURCE: 50 FR 38395, Sept. 20, 1985, unless otherwise noted

# § 421.330 Applicability: Description of the primary zirconium and hafnium subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of zirconium or hafnium at primary zirconium and hafnium facilities. There are two levels of BPT, BAT, NSPS, PSES and PSNS provisions for this subpart. Facilities which only produce zirconium or zirconium/nickel alloys by magnesium reduction of zirconium dioxide are exempt from regulations. All other facilities are subject to these regulations.

### §421.331 Specialized definitions.

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

#### §421.332 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Sand drying wet air pollution control.

§ 421.332

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.250	0.102
Cyanide (total)	0.165	0.068
Lead	0.239	0.114
Nickel	1.091	0.721
Ammonia (as N)	75.710	33.280
Total suspended solids	23.290	11.080
pH	(1)	(1)

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

## (b) Sand chlorination off-gas wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zironium di- oxide and hafnium di- oxide produced	
Chromium (total)	19.130	7.825
Cyanide (total)	12.610	5.216
Lead	18.260	8.694
Nickel	83.460	55.210
Ammonia (as N)	5,795.000	2,547.000
Total suspended solids	1,782.000	847.700
pH	(1)	(1)

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

### (c) Sand chlorination area-vent wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.751 2.472 3.580 16.370 1,136.000 349.500 (1)	1.534 1.023 1.705 10.830 449.500 166.200 (¹)

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

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.299	1.350
Cyanide (total)	2.174	0.900
Lead	3.149	1.500
Nickel	14.400	9.522
Ammonia (as N)	999.500	439.400
Total suspended solids	307.400	146.200
pH	(1)	(1)

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

## (e) Feed makeup wet air pollution control. $\label{eq:control}$

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	2.501	1.023
Cyanide (total)	1.648	0.682
Lead	2.387	1.137
Nickel	10.910	7.217
Ammonia (as N)	757.500	333.000
Total suspended solids	233.000	110.800
pH	(1)	(1)

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

# $\begin{array}{cccc} \hbox{(f)} & Iron & extraction & \hbox{(MIBK)} & steam \\ stripper bottoms. \end{array}$

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.987	0.404
Cyanide (total)	0.651	0.269
Lead	0.942	0.449
Nickel	4.308	2.850
Ammonia (as N)	299.100	131.500
Total suspended solids	92.000	43.760
pH	(1)	(1)

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

<sup>(</sup>d)  $SiCl_4$  purification wet air pollution control.

<sup>(</sup>g) Zirconium filtrate.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	17.070 11.250	6.982 4.655
Cyanide (total) Lead	16.290	7.758
Nickel	74.480	49.260
Ammonia (as N)	5,171.000	2,273.000
Total suspended solids	1,590.000	756.400
pH	(1)	(1)

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

### (h) Hafnium filtrate.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
0.000	0.000
0.000	0.000
0.000	0.000
0.000	0.000
0.000	0.000
0.000	0.000
(1)	(¹)
	for any 1 day  mg/kg (pounc pounds) or dioxide and oxide produ  0.000 0.000 0.000 0.000 0.000 0.000

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

### (i) Calcining caustic wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.959	1.619
Cyanide (total)	2.609	1.080
Lead	3.779	1.799
Nickel	17.270	11.430
Ammonia (as N)	1,199.000	527.200
Total suspended solids	368.900	175.400
pH	(1)	(1)

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

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of zirconium and hafnium produced	
Chromium (total)	16.860	6.897
` '		
Cyanide (total)	11.110	4.598
Lead	16.090	7.663
Nickel	73.570	48.660
Ammonia (as N)	5,108.000	2,245.000
Total suspended solids	1,571.000	747.200
pH	(1)	(1)

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

## $\left(k\right)$ Reduction area-vent wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconiun and hafnium produced	
Chromium (total)	1.622 1.069 1.548 7.077 491.300 151.100	0.663 0.442 0.737 4.681 216.000 71.880
pH	(1)	(1)

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

## (l) Magnesium recovery off-gas wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	9.123 6.013 8.708 39.810 2,764.000 850.100	3.732 2.488 4.147 26.330 1,215.000 404.300

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

(m) Magnesium recovery area-vent wet air pollution control.

<sup>(</sup>j) Pure chlorination wet air pollution control.

§ 421.332

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum	Maximum
for any 1	for monthly
day	average
mg/kg (pounds per millior pounds) of zirconium and hafnium produced	
5.068	2.073
3.340	1.382
4.838	2.304
22.110	14.630
1,535.000	675.000
472.200	224.600
	for any 1 day  mg/kg (pound pounds) o and hafniun  5.068 3.340 4.838 22.110 1,535.000

<sup>&</sup>lt;sup>1</sup> Within the range of 7.5 to 10.0. .

## (n) Zirconium chip crushing wet air pollution control.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	0.000	0.000
Cyanide (total)	0.000	0.000
Nickel	0.000	0.000
Ammonia (as N)	0.000 0.00	
Total suspended solids	0.000	0.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$ 

## (o) Acid leachate from zirconium metal production. $\,$

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zin conium produced	
Chromium (total)	12.970 8.545 12.380 56.570 3,928.000	5.304 3.536 5.893 37.420 1,727.000
Total suspended solidspH	1,208.000 (¹)	574.600 (¹)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$  the range of 7.5 to 10.0 at all times.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of zirconium contained in alloys pro- duced	
6 939	2.839
4.574	1.893
6.624	3.154
30.280	20.030
2,102.000	924.200
646.600	307.600
(1)	(1)
	for any 1 day  mg/kg (pound pounds) o contained i duced  6.939 4.574 6.624 30.280 2,102.000 646.600

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

# $\mbox{(q)}$ Leaching rinse water from zirconium metal production.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per millior pounds) of zirconium produced	
Chromium (total)	25.930	10.610
Cyanide (total)	17.090	7.072
Lead	24.750	11.790
Nickel	113.200	74.840
Ammonia (as N)	7,856.000	3,453.000
Total suspended solids	2,416.000	1,149.000
pH	(¹)	(¹)

<sup>&</sup>lt;sup>1</sup> Within the range of 7.5 to 10.0.

# (r) Leaching rinse water from zirconium alloy production.

BPT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium in alloys produced	
Chromium (total)	0.347 0.229 0.331 1.515 105.200 32.350	0.142 0.095 0.158 1.002 46.240 15.390

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

<sup>(</sup>p) Acid leachate from zirconium alloy production.

#### §421.333 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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

(a) Sand drying wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

		-
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.210	0.085
Cyanide (total)	0.114	0.045
Lead	0.159	0.074
Nickel	0.312	0.210
Ammonia (as N)	75.710	33.280

(b) Sand chlorination off-gas wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	16.080	6.521
Cyanide (total)	8.694	3.478
Lead	12.170	5.651
Nickel	23.910	16.080
Ammonia (as N)	5,795.000	2,547.000

(c) Sand chlorination area-vent wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.154 1.705	1.279 0.682
Cyanide (total)		
Lead	2.387	1.108
Nickel	4.688	3.154
Ammonia (as N)	1,136.000	499.500

(d)  $SiCl_4$  purification wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
2.774 1.500 2.099 4.124	1.125 0.600 0.975 2.774 439.400
	mg/kg (pound pounds) of dioxide and oxide production oxid

(e) Feed makeup wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
2.103	0.852
1.137	0.455
1.591	0.739
3.126	2.103
757.500	333.000
	mg/kg (pound pounds) o dioxide and oxide produ 2.103 1.137 1.591 3.126

(f) Iron extraction (MIBK) steam stripper bottoms.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.830 0.449 0.628 1.234	0.337 0.180 0.292 0.830
Ammonia (as N)	299.100	131.500

### (g) Zirconium filtrate.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	14.350	5.819
Cyanide (total)	7.758	3.103
Lead	10.860	5.043
Nickel	21.330	14.350
Ammonia (as N)	5,171.000	2,273.00

### (h) Hafnium filtrate.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.000	0.000
Cyanide (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Ammonia (as N)	0.000	0.000

# (i) Calcining caustic wet air pollution control.

### BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.329	1.350
Cyanide (total)	1.799	0.720
Lead	2.519	1.170
Nickel	4.948	3.329
Ammonia (as N)	1,199.000	527.200

## (j) Pure chlorination wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	14.180	5.748
Cyanide (total)	7.663	3.065
Lead	10.730	4.981
Nickel	21.070	14.180
Ammonia (as N)	5,108.000	2,245.000

### (k) Reduction area-vent wet air pollution control.

# BAT LIMITATIONS FOR THE PRIMARY ZIROCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	1.364	0.553
Cyanide (total)	0.737	0.295
Lead	1.032	0.479
Nickel	2.027	1.364
Ammonia (as N)	491.300	216.000

# (l) Magnesium recovery off-gas wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	7.671	3.110
Cyanide (total)	4.147	1.659
Lead	5.805	2.695
Nickel	11.400	7.671
Ammonia (as N)	2,764.000	1,215.000

(m) Magnesium recovery area-vent wet air pollution control.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	4.262	1.728
Cyanide (total)	2.304	0.921
Lead	3.225	1.497
Nickel	6.335	4.262
Ammonia (as N)	1,535.000	675.000

(n) Zirconium chip crushing wet air pollution control.  $\,$ 

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
Ammonia (as N)	0.000	0.000

 $\begin{array}{cccc} \hbox{(o)} & Acid & leachate & from & zirconium \\ metal & production. \end{array}$ 

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zir- conium produced	
Chromium (total)	10.900	4.420
Cyanide (total)	5.893	2.357
Lead	8.250	3.831
Nickel	16.210	10.900
Ammonia (as N)	3,928.000	1,674.000

(p) Acid leachate from zirconium alloy production.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys pro- duced	
Chromium (total)	5.835	2.366
Cyanide (total)	3.154	1.262
Lead	4.416	2.050
Nickel	8.674	5.835
Ammonia (as N)	2,102.000	895.000

(q) Leaching rinse water from zirconium metal production.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zir- conium produced	
Chromium (total)	21.810	8.840
Cyanide (total)	11.790	4.715
Lead	16.500	7.661
Nickel	32.410	21.810
Ammonia (as N)	7,856.000	3,453.000

 $\mbox{(r)}$  Leaching rinse water from zirconium alloy production.

BAT LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys pro- duced	
Chromium (total) Cyanide (total) Lead Nickel Ammonia (as N)	0.292 0.158 0.221 0.434 105.200	0.118 0.063 0.103 0.292 46.240

## § 421.334 Standards of performance for new sources.

Any new source subject to this subpart shall achieve the following new source performance standards:

(a) Sand drying wet air pollution control.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.210	0.085
Cyanide (total)	0.114	0.045
Lead	0.159	0.074
Nickel	0.312	0.210
Ammonia (as N)	75.710	33.280
Total suspended solids	8.520	6.816
pH	(1)	(1)

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

(b) Sand chlorination off-gas wet air pollution control.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	16.080	6.521
Cyanide (total)	8.694	3.478
Lead	12.170	5.651
Nickel	23.910	16.080
Ammonia (as N)	5,795.000	2,547.000
Total suspended solids	652.100	521.000
pH	(1)	(1)

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

(c) Sand chlorination area-vent wet air pollution control.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total) Cyanide (total)	3.154 1.705	1.279 0.682
Lead	2.387	1.108
Nickel	4.688	3.154
Ammonia (as N)	1,136.000	499.500
Total suspended solids	127.900	102.300
pH	(1)	(1)

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

(d)  $SiC_{14}$  purification wet air pollution control.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconiun dioxide and hafnium di oxide produced	
Chromium (total)	2.774	1.125
Cyanide (total)	1.500	0.600
Lead	2.099	0.975
Nickel	4.124	2.774
Ammonia (as N)	999.500	439.400
Total suspended solids	112.500	89.980
pH	(1)	(1)

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

### (e) Feed makeup wet air pollution control.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Channium (tatal)	2.103	0.852
Chromium (total)		
Cyanide (total)	1.137	0.455
Lead	1.591	0.739
Nickel	3.126	2.103
Ammonia (as N)	757.500	333.000
Total suspended solids	85.250	68.200
pH	(1)	(1)

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

## (f) Iron extraction (MIBK) steam stripper bottoms.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.830 0.449 0.628	0.337 0.180
Lead Nickel Ammonia (as N)	1.234 299.100	0.292 0.830 131.500
Total suspended solidspH	33.660 (¹)	26.930 (¹)

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

### (g) Zirconium filtrate.

## NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	14.350 7.758 10.860 21.330 5,171.000 581.900 (¹)	5.819 3.103 5.043 14.350 2,273.000 465.500 (¹)

 $<sup>^{\</sup>rm 1}\,\text{Within}$  the range of 7.5 to 10.0 at all times.

### (h) Hafnium filtrate.

### NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.000 0.000 0.000 0.000 0.000 0.000 (¹)	0.000 0.000 0.000 0.000 0.000 0.000 (1)

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

### (i) Calcining caustic wet air pollution control. $\,$

### NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
3.329	1.350
1.799	0.720
2.519	1.170
4.948	3.329
1,199.000	527.200
135.000	108.000
(1)	(1)
	mg/kg (pound pounds) of dioxide and oxide products 3.329 1.799 2.519 4.948 1,199.000 135.000

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

### (j) Pure chlorination wet air pollution control.

## NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	14.180 7.663 10.730 21.070 5,108.000	5.748 3.065 4.981 14.180 2,245.000
Total suspended solidspH	574.800 (¹)	459.800 (¹)

 $<sup>^{\</sup>mbox{\tiny I}}$  Within the range of 7.5 to 10.0 at all times.

### $\left(k\right)$ Reduction area-vent wet air pollution control.

## NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pound pounds) o and hafniur	f zirconium
Chromium (total)	1.364 0.737	0.553 0.295
Lead	1.032	0.479
Nickel	2.027	1.364
Ammonia (as N)	491.300	216.000
Total suspended solids	55.290	44.230
pH	(1)	(1)

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

(l) Magnesium recovery off-gas wet air pollution control.

§ 421.334

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	7.671	3.110
Cyanide (total)	4.147	1.659
Lead	5.805	2.695
Nickel	11.400	7.671
Ammonia (as N)	2,764.000	1,215.000
Total suspended solids	404.300	248.800
pH	(1)	(1)

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

# (m) Magnesium recovery area-vent wet air pollution control.

## NSPS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	4.262 2.304 3.225 6.335 1,535.000 172.800	1.728 0.921 1.497 4.262 675.000 138.200

 $<sup>^{\</sup>mbox{\tiny 1}}$  Within the range of 7.5 to 10.0 at all times.

### (n) Zirconium chip crushing west air pollution control.

## NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total) Cyanide (total) Lead Nickel Ammonia (as N) Total suspended solids	0.000 0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny l}}$  Within the range of 7.5 to 10.0 at all times.

## $\begin{array}{cccc} \hbox{(o)} & Acid & leachate & from & zirconium \\ metal & production. \end{array}$

### NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of pure zir- conium produced	
40.000	4 400
	4.420
5.893	2.357
8.250	3.831
16.210	10.900
3,928.000	1,674.000
442.000	353.600
(1)	(1)
	for any 1 day  mg/kg (pound pounds) o conium pro  10.900 5.893 8.250 16.210 3,928.000 442.000

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

### (p) Acid leachate from zirconium alloy production.

### NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		ls per million of zirconium on alloys pro-
Chromium (total)	5.835	2.366
Cyanide (total)	3.154	1.262
Lead	4.416	2.050
Nickel	8.674	5.835
Ammonia (as N)	2,102.000	895.800
Total suspended solids	236.600	189.300
pH	(1)	(1)

 $<sup>^{\</sup>mbox{\tiny I}}$  Within the range of 7.5 to 10.0 at all times.

# $\left( q\right)$ Leaching rinse water from zirconium metal production.

### NSPS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zir- conium produced	
Chromium (total)	21.810 11.790 16.500 32.410 7,856.000 884.000	8.840 4.715 7.661 21.810 3,453.000 707.200

 $<sup>^{\</sup>scriptscriptstyle 1}\!$  Within the range of 7.5 to 10.0 at all times.

(r) Leaching rinse water from zirconium alloy production.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys pro- duced	
Chromium (total)	0.292	0.118
Cyanide (total)	0.158	0.063
Lead	0.221	0.103
Nickel	0.434	0.292
Ammonia (as N)	105.200	46.240
Total suspended solids	11.840	9.468
pH	(1)	(1)

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

### §421.335 [Reserved]

### §421.336 Pretreatment standards for new sources.

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in primary zirconium and hafnium process wastewater introduced into a POTW shall not exceed the following values:

(a) Sand drying wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.210	0.085
Cyanide (total)	0.114	0.045
Lead	0.159	0.074
Nickel	0.312	0.210
Ammonia (as N)	75.710	33.280

(b) Sand chlorination off-gas wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	16.080	6.521
Cyanide (total)	8.690	3.478
Lead	12.170	5.651
Nickel	23.910	16.080
Ammonia (as N)	5,795.000	2,547.000

(c) Sand chlorination area vent wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.154	1.279
Cyanide (total)	1.705	0.682
Lead	2.387	1.108
Nickel	4.688	3.154
Ammonia (as N)	1,136.000	499.500

(d)  $SiCl_4$  purification wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Maximum for any 1 day	Maximum for monthly average
mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
2.774	1.125
1.500	0.600
2.099	0.975
4.124	2.774
999.500	439.400
	mg/kg (pound pounds) of dioxide and oxide product 2.774 1.500 2.099 4.124

(e) Feed makeup wet air pollution control.

### 40 CFR Ch. I (7-1-98 Edition)

# PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

§ 421.336

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	2.103	0.852
Cyanide (total)	1.137	0.455
Lead	1.591	0.739
Nickel	3.126	2.103
Ammonia (as N)	757.500	333.000

# $\begin{array}{cccc} \mbox{(f)} & \mbox{Iron extraction} & \mbox{(MIBK)} & \mbox{steam} \\ \mbox{stripper bottoms}. \end{array}$

### PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.830	0.337
Cyanide (total)	0.449	0.180
Lead	0.628	0.292
Nickel	1.234	0.830
Ammonia (as N)	299.100	131.500

### (g) Zirconium filtrate.

## PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	14.350	5.819
Cyanide (total)	7.758	3.103
Lead	10.860	5.043
Nickel	21.340	14.350
Ammonia (as N)	5,171.000	2,273.000

### (h) Hafnium filtrate.

### PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	0.000	0.000
Cyanide (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Ammonia (as N)	0.000	0.000

## (i) Calcining caustic wet air pollution control.

## PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium di- oxide produced	
Chromium (total)	3.329 1.799	1.350 0.720
Lead	2.519	1.170
Nickel	4.948	3.329
Ammonia (as N)	1,199.000	527.200

## (j) Pure chlorination wet air pollution control.

### PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	14.180	5.748
Cyanide (total)	7.663	3.065
Lead	10.730	4.981
Nickel	21.007	14.180
Ammonia (as N)	5,108.000	2,245,000

## $\ensuremath{(k)}$ Reduction area-vent wet air pollution control.

## PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of Zirconium and hafnium produced	
Chromium (total)	1.364	0.553
Cyanide (total)	0.737	0.295
Lead	1.032	0.479
Nickel	2.027	1.364
Ammonia (as N)	491.300	216.000

# (l) Magnesium recovery off-gas wet air pollution control.

## PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	7.671	3.110
Cyanide (total)	4.147	1.659
Lead	5.805	2.695
Nickel	11.400	7.671
Ammonia (as N)	2,764.000	1,215.000

## (m) Magnesium recovery area-vent wet air pollution control.

## PSNS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	4.262	1.728
Cyanide (total)	2.304	0.921
Lead	3.225	1.497
Nickel	6.335	4.262
Ammonia (as N)	1,535,000	675.00

# (n) Zirconium chip crushing wet air pollution control.

### PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	0.000	0.000
Cyanide (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Ammonia (as N)	0.000	0.000

## $\begin{array}{cccc} \hbox{(o)} & Acid & leachate & from & zirconium \\ metal & production. \end{array}$

## PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zir- conium produced	
Chromium (total)	10.900	4.420
Cyanide (total)	5.893	2.357
Lead	8.250	3.831
Nickel	16.210	10.900
Ammonia (as N)	3,928.000	1,674.00

## $\begin{array}{cccc} \mbox{(p)} & Acid & leachate & from & zirconium \\ alloy & production. \end{array}$

## PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys pro- duced	
Chromium (total)	5.835	2.366
Cyanide (total)	3.154	1.262
Lead	4.416	2.050
Nickel	8.674	5.835
Ammonia (as N)	2,102.000	895.800

 $\mbox{(q)}$  Leaching rinse water from zirconium metal production.

#### **PSNS** LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zir- conium produced	
Chromium (total)	21.810	8.840
Cyanide (total)	11.790	4.715
Lead	16.500	7.661
Nickel	32.410	21.810
Ammonia (as N)	7,856.000	3,453.000

### (r) Leaching rinse water from zirconium alloy production.

#### PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys pro- duced	
Chromium (total) Cyanide (total) Lead Nickel Ammonia (as N)	0.292 0.158 0.221 0.434 105.200	0.118 0.063 0.103 0.292 46.240

### §421.337 [Reserved]

#### PART 422—PHOSPHATE MANUFAC-TURING POINT SOURCE CAT-**EGORY**

### Subpart A—Phosphorus Production Subcategory

422.10 Applicability; description of the phosphorus production subcategory.

#### Subpart B—Phosphorus Consuming Subcategory

422.20 Applicability; description of the phosphorus consuming subcategory.

#### Subpart C—Phosphate Subcategory

422.30 Applicability; description of the phosphate subcategory.

#### Subpart D—Defluorinated Phosphate Rock Subcategory

422.40 Applicability; description of the defluorinated phosphate rock subcategory.

- 422.41 Specialized definitions. 422.42 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 422.43 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 422.44 [Reserved]
- 422.45 Standards of performance for new sources.
- 422.46 [Reserved]
- 47 Effluent limitations guidelines representing the degree of effluent reduction 422.47 attainable by the application of the best conventional pollutant control technology

#### Subpart E—Defluorinated Phosphoric Acid Subcategory

- 422.50 Applicability; description of the defluorinated phosphoric acid subcategory.
- 422.51 Specialized definitions.
- 422.52 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 422.53 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 422.54 [Reserved]
- 422.55 Standards of performance for new sources.
- 422.56 [Reserved]
- 422.57 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

#### Subpart F—Sodium Phosphates Subcategory

- 422.60 Applicability; description of the sodium phosphates subcategory.
- 422.61 Specialized definitions.
- 422.62 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 422.63 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 422.64 [Reserved]
- 422.65 Standards of performance for new sources.