

Environmental Protection Agency

§ 421.102

§ 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 sulfuric acid capacity	
Cadmium	0.511	0.204
Zinc	2.605	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 sulfuric acid capacity	
Arsenic	3.550	1.584
Cadmium	0.511	0.204
Copper	3.269	1.558
Lead	0.715	0.332
Zinc	2.605	1.073
Fluoride ¹	89.390	50.820
Molybdenum ¹	[Reserved]	[Reserved].

¹ 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 subpart.

[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 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 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)

¹ Within the range of 7.0 to 10.0 at all times.

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

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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)

¹ 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
	mg/kg (pounds per million pounds) of sodium tungstate (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)

¹ 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) produced	
Lead	8.057	3.837
Zinc	28.011	11.700
Ammonia (as N)	2,557.000	1,124.000
Total suspended solids	786.200	374.100
pH	(¹)	(¹)

¹ 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) produced	
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)

¹ 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) produced	
Lead	37.160	17.700
Zinc	129.200	53.970
Ammonia (as N) (²)	11,790.000	5,185.000
Total suspended solids	3,627.000	1,726.000
pH	(¹)	(¹)

¹ Within the range of 7.0 to 10.0 at all times.

² The 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.

(g) Subpart J—Calcium Tungstate Precipitate Wash.

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) produced	
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)

¹ Within the range of 7.0 to 10.0 at all times.

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

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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)

¹ 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	
Lead	11.600	5.523
Zinc	40.320	16.850
Ammonia (as N)	3,681.000	1,618.000
Total suspended solids	1,132.000	538.500
pH	(¹)	(¹)

¹ Within the range of 7.0 to 10.0 at all times.

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

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	0.013
Zinc	0.092	0.038
Ammonia (as N)	8.398	3.692
Total suspended solids	2.583	1.229
pH	(¹)	(¹)

¹ Within the range of 7.0 to 10.0 at all times.

(k) Subpart J—Reduction to Tungsten 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	12.940	6.161

BPT EFFLUENT LIMITATIONS—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc	44.970	18.790
Ammonia (as N)	4,106.000	1,805.000
Total suspended solids	1,263.000	600.700
pH	(¹)	(¹)

¹ 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 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten metal produced	
Lead .....	.205	.098
Zinc .....	.714	.298
Ammonia (as N)	65.190	28.660
Total suspended solids	20.050	9.536
pH	(¹)	(¹)

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	
Lead	1.008	0.48
Zinc	3.504	1.464
Ammonia (as N)	319.900	140.700
Total suspended solids	98.400	46.800
pH	(¹)	(¹)

¹ 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 solids000	.000
pH	(¹)	(¹)

¹ Within the range of 7.0 to 10.0 at all times.

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[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 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 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	
Lead	1.003	0.466
Zinc	3.653	1.504
Ammonia (as N)	477.400	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 million pounds) of sodium tungstate (as W) produced	
Lead	0.000	0.000
Zinc	0.000	0.000
Ammonia (as N)	0.000	0.000

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(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 million pounds) of sodium tungstate (as W) produced	
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).

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) produced	
Lead	24.780	11.500
Zinc	90.240	37.160
Ammonia (as N)	11,790.000	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) produced	
Lead	24.780	11.500
Zinc	90.240	37.160
Ammonia (as N) ¹	11,790.000	5,185.000

¹ The effluent limitation 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.