

**Environmental Protection Agency**

**§ 471.45**

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals surface treated	
Cadmium .....	0.033	0.015
Copper .....	0.183	0.097
Cyanide .....	0.028	0.012
Silver .....	0.040	0.017

(o) *Surface treatment rinse.*

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals surface treated	
Cadmium .....	0.210	0.093
Copper .....	1.17	0.616
Cyanide .....	0.179	0.074
Silver .....	0.253	0.105

(p) *Alkaline cleaning spent baths.*

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals alkaline cleaned	
Cadmium .....	0.021	0.009
Copper .....	0.114	0.060
Cyanide .....	0.018	0.007
Silver .....	0.025	0.010

(q) *Alkaline cleaning rinse.*

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals alkaline cleaned	
Cadmium .....	0.381	0.168
Copper .....	2.13	1.12
Cyanide .....	0.325	0.135
Silver .....	0.459	0.191

(r) *Alkaline cleaning prebonding wastewater.*

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals and base metal cleaned prior to bonding	
Cadmium .....	0.400	0.174
Copper .....	2.210	1.16
Cyanide .....	0.337	0.139
Silver .....	0.476	0.197

(s) *Tumbling or burnishing wastewater.*

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals tumbled or burnished	
Cadmium .....	0.412	0.182
Copper .....	2.300	1.21
Cyanide .....	0.351	0.145
Silver .....	0.496	0.206

(t) *Sawing or grinding spent neat oils—subpart D—PSES.* There shall be no discharge of process wastewater pollutants.

(u) *Sawing or grinding spent emulsions.*

**SUBPART D—PSES**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals sawed or ground with emulsions	
Cadmium .....	0.032	0.014
Copper .....	0.178	0.094
Cyanide .....	0.027	0.011
Silver .....	0.038	0.016

(v) *Degreasing spent solvents—subpart D—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

**§ 471.45 Pretreatment standards for new sources (PSNS).**

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

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standards for new sources (PSNS). The mass of wastewater pollutants in precious metals forming wastewater introduced into a POTW shall not exceed the following values:

(a) *Rolling spent neat oils—subpart D—PSNS.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART D—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals rolled with emulsions	
Cadmium .....	0.026	0.012
Copper .....	0.147	0.077
Cyanide .....	0.023	0.010
Silver .....	0.032	0.013

(c) *Drawing spent neat oils—subpart D—PSNS.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals drawn with emulsions	
Cadmium .....	0.016	0.007
Copper .....	0.091	0.048
Cyanide .....	0.014	0.006
Silver .....	0.020	0.008

(e) *Drawing spent soap solutions.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals drawn with soap solutions	
Cadmium .....	0.001	0.0005
Copper .....	0.006	0.003
Cyanide .....	0.0009	0.0004
Silver .....	0.002	0.0006

(f) *Metal powder production wet atomization wastewater.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals powder wet atomized	
Cadmium .....	2.27	1.00
Copper .....	12.7	6.68
Cyanide .....	1.94	0.802
Silver .....	2.74	1.14

(g) *Heat treatment contact cooling water.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extended precious metals heat treated	
Cadmium .....	0.142	0.063
Copper .....	0.793	0.417
Cyanide .....	0.121	0.050
Silver .....	0.171	0.071

(h) *Semi-continuous and continuous casting contact cooling water.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals cast by the semi-continuous or continuous method	
Cadmium .....	0.350	0.155
Copper .....	1.96	1.03
Cyanide .....	0.299	0.124
Silver .....	0.423	0.175

(i) *Stationary casting contact cooling water—subpart D—PSNS.* There shall be no discharge of process wastewater pollutants.

(j) *Direct chill casting contact cooling water.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals cast by the direct chill method	
Cadmium .....	0.367	0.162
Copper .....	2.05	1.08
Cyanide .....	0.313	0.130
Silver .....	0.443	0.184

(k) *Shot casting contact cooling water.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals shot cast	
Cadmium .....	0.125	0.055
Copper .....	0.698	0.367
Cyanide .....	0.107	0.044
Silver .....	0.151	0.0631

(l) *Wet air pollution control scrubber blowdown—subpart D—PSNS.* There shall be no discharge of process wastewater pollutants.

(m) *Pressure bonding contact cooling water.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals and base metal pressure bonded	
Cadmium .....	0.029	0.013
Copper .....	0.159	0.084
Cyanide .....	0.024	0.010
Silver .....	0.034	0.014

(n) *Surface treatment spent baths.*

**SUBPART D—PSNS**

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(o) *Surface treatment rinse.*

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(p) *Alkaline cleaning spent baths.*

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(q) *Alkaline cleaning rinse.*

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(r) *Alkaline cleaning pre-bonding wastewater.*

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(s) *Tumbling or burnishing wastewater.*

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(u) *Sawing or grinding spent emulsions.*

SUBPART D—PSNS

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(v) *Degreasing spent solvents—subpart D—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

**§ 471.46 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).** [Reserved]

**Subpart E—Refractory Metals Forming Subcategory**

**§ 471.50 Applicability; description of the refractory metals forming subcategory.**

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the refractory metals forming subcategory.

**§ 471.51 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).**

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 for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) *Rolling spent neat oils and graphite based lubricants—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals rolled with emulsions	
Copper .....	0.815	0.429
Nickel .....	0.824	0.545
Fluoride .....	25.5	11.3
Molybdenum .....	2.84	1.47
Oil and grease .....	8.58	5.15
TSS .....	17.6	8.37
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(c) *Drawing spent lubricants—subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion spent lubricants—subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(e) *Extrusion press hydraulic fluid leakage.*

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals extruded	
Copper .....	2.26	1.19
Nickel .....	2.29	1.51
Fluoride .....	70.8	31.4
Molybdenum .....	7.87	4.07
Oil and grease .....	23.8	14.3
TSS .....	48.8	23.2
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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