

**Environmental Protection Agency**

**§ 471.43**

**SUBPART D—BAT**

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 .....	0.0327	0.014
Copper .....	0.178	0.094
Cyanide .....	0.0277	0.011
Silver .....	0.0381	0.016

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

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

**§ 471.43 New source performance standards (NSPS).**

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

(a) *Rolling Spent Neat Oils—subpart D—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

**SUBPART D—NSPS**

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
Oil and grease .....	1.54	0.925
TSS .....	3.16	1.51
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 neat oils—subpart D—NSPS.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

**SUBPART D—NSPS**

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 .....	0.017	0.007
Copper .....	0.091	0.048
Cyanide .....	0.014	0.006
Silver .....	0.020	0.008
Oil and grease .....	0.950	0.570
TSS .....	1.95	0.927
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(e) *Drawing spent soap solutions.*

**SUBPART D—NSPS**

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
Oil and grease .....	0.063	0.038
TSS .....	0.128	0.061
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(f) *Metal powder production atomization wastewater.*

**SUBPART D—NSPS**

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
Oil and grease .....	134	80.2
TSS .....	274	131
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(g) *Heat treatment contact cooling water.*

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SUBPART D—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals heat treated	
Cadmium .....	0.142	0.063
Copper .....	0.793	0.417
Cyanide .....	0.121	0.050
Silver .....	0.171	0.071
Oil and grease .....	8.34	5.01
TSS .....	17.1	8.13
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

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

SUBPART D—NSPS

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
Oil and grease .....	20.6	12.4
TSS .....	42.3	20.1
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

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

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

SUBPART D—NSPS

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
Oil and grease .....	21.6	13.0
TSS .....	44.3	21.1
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(k) *Shot casting contact cooling water.*

SUBPART D—NSPS

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	0.063
Oil and grease .....	7.34	4.41
TSS .....	15.1	7.16
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

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

(m) *Pressure bonding contact cooling water.*

SUBPART D—NSPS

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
Oil and grease .....	1.67	1.00
TSS .....	3.43	1.63
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(n) *Surface treatment spent baths.*

SUBPART D—NSPS

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
Oil and grease .....	1.93	1.16
TSS .....	3.95	1.88
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(o) *Surface treatment rinse.*

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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 surface treated	
Cadmium .....	0.210	0.093
Copper .....	1.17	0.616
Cyanide .....	0.179	0.074
Silver .....	0.253	0.105
Oil and grease .....	12.3	7.39
TSS .....	25.3	12.0
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(p) *Alkaline cleaning spent baths.*

**SUBPART D—NSPS**

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
Oil and grease .....	1.20	0.720
TSS .....	2.46	1.17
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(q) *Alkaline cleaning rinse.*

**SUBPART D—NSPS**

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	1.112
Cyanide .....	0.325	0.135
Silver .....	0.459	0.191
Oil and grease .....	22.4	13.5
TSS .....	45.9	21.9
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

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

**SUBPART D—NSPS**

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 .....	2.21	1.16
Cyanide .....	0.337	0.139
Silver .....	0.476	0.197
Oil and grease .....	23.2	13.9
TSS .....	47.6	22.6
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

(s) *Tumbling or burnishing wastewater.*

**SUBPART D—NSPS**

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 .....	2.30	1.21
Cyanide .....	0.351	0.145
Silver .....	0.496	0.206
Oil and grease .....	24.2	14.5
TSS .....	49.6	23.6
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

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

(u) *Sawing or grinding spent emulsions.*

**SUBPART D—NSPS**

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
Oil and grease .....	1.87	1.12
TSS .....	3.83	1.82
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

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

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

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

**§ 471.44 Pretreatment standards for existing sources (PSES).**

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 by August 23, 1985 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in precious metals forming process wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Rolling 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 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—PSES.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing 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 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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**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 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 atomization 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 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.*

**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 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.*

**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 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