

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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40 CFR Ch. I (7-1-10 Edition)

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.*

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 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.*

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 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.*

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 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.*

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 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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| 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—PSNS

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| | 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 |
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(p) *Alkaline cleaning spent baths.*

SUBPART D—PSNS

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| | 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 |
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(q) *Alkaline cleaning rinse.*

SUBPART D—PSNS

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| | 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 pre-bonding wastewater.*

SUBPART D—PSNS

| Pollutant or pollutant property | Maximum for any 1 day | Maximum for monthly average |
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| | 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 |

(s) *Tumbling or burnishing wastewater.*

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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 tumbled or bur-nished | |
| Cadmium | 0.412 | 0.182 |
| Copper | 2.30 | 1.21 |
| Cyanide | 0.351 | 0.145 |
| Silver | 0.496 | 0.206 |

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

(u) *Sawing or grinding 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 pre-cious 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]

§ 471.46 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.*

SUBPART E—BPT

| 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 | (¹) | (¹) |

¹ 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.*

SUBPART E—BPT

| 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 | (¹) | (¹) |

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