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## ENHANCED CONTENT - TABLE OF CONTENTS

<b>Part 468</b>	Copper Forming Point Source Category	468.01 – 468.20
General Provisions		468.01 – 468.04
§ 468.01	Applicability.	
§ 468.02	Specialized definitions.	
§ 468.03	Monitoring and reporting requirements.	
§ 468.04	Compliance date for PSES.	
<b>Subpart A</b>	Copper Forming Subcategory	468.10 – 468.16
§ 468.10	Applicability; description of the copper forming subcategory.	
§ 468.11	Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).	
§ 468.12	Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.	
§ 468.13	New source performance standards (NSPS).	
§ 468.14	Pretreatment standards for existing sources (PSES).	
§ 468.15	Pretreatment standards for new sources (PSNS).	
§ 468.16	<i>Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollution control technology (BCT). [Reserved]</i>	
<b>Subpart B</b>	Beryllium Copper Forming Subcategory	468.20
§ 468.20	Applicability; description of the beryllium copper forming subcategory.	

# Title 40

## PART 468 - COPPER FORMING POINT SOURCE CATEGORY

**Authority:** Secs. 301, 304 (b), (c), (e), and (g), 306 (b) and (c), 307 (b) and (c), 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) the “Act”; 33 U.S.C. 1311, 1314 (b), (c), (e), and (g), 1316 (b) and (c), 1317 (b) and (c), and 1361; 86 Stat. 816, Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217.

**Source:** 48 FR 36957, Aug. 15, 1983, unless otherwise noted.

### GENERAL PROVISIONS

#### § 468.01 Applicability.

- (a) The provisions of this part are applicable to discharges resulting from the manufacture of formed copper and copper alloy products. The forming operations covered are hot rolling, cold rolling, drawing, extrusion and forging. This part does not regulate the forming of precious metals. (See 40 CFR part 471). The casting of copper and copper alloys is not covered by this part. (See 40 CFR part 464).
- (b) The discharge allowance for drawing spent lubricant of 40 CFR 468.11(c), 468.14(c), and 468.15(c) are applicable only to those plants that actually discharge the drawing spent lubricant waste stream at copper forming sites. No discharge allowance is applicable or allowable where these wastewaters are hauled off-site for disposal or are otherwise not discharged at copper forming sites.

[51 FR 22521, June 20, 1986]

#### § 468.02 Specialized definitions.

In addition to the definitions set forth in 40 CFR part 401 and the chemical analysis methods in 40 CFR part 136, the following definitions apply to this part:

- (a) The term "alkaline cleaning bath" shall mean a bath consisting of an alkaline cleaning solution through which a workpiece is processed.
- (b) The term "alkaline cleaning rinse" shall mean a rinse following an alkaline cleaning bath through which a workpiece is processed. A rinse consisting of a series of rinse tanks is considered as a single rinse.
- (c) The term "ancillary operation" shall mean any operation associated with a primary forming operation. These ancillary operations include surface and heat treatment, hydrotreating, sawing, and surface coating.
- (d) The term "annealing with oil" shall mean the use of oil to quench a workpiece as it passes from an annealing furnace.
- (e) The term "annealing with water" shall mean the use of a water spray or bath, of which water is the major constituent, to quench a workpiece as it passes from an annealing furnace.
- (f) The term "cold rolling" shall mean the process of rolling a workpiece below the recrystallization temperature of the copper or copper alloy.
- (g) The term "drawing" shall mean pulling the workpiece through a die or succession of dies to reduce the diameter or alter its shape.
- (h) The term "extrusion" shall mean the application of pressure to a copper workpiece, forcing the copper to flow through a die orifice.
- (i) The term "extrusion heat treatment" shall mean the spray application of water to a workpiece immediately following extrusions for the purpose of heat treatment.
- (j) The term "heat treatment" shall mean the application or removal of heat to a workpiece to change the physical properties of the metal.
- (k) The term "pickling bath" shall mean any chemical bath (other than alkaline cleaning) through which a workpiece is processed.
- (l) The term "pickling fume scrubber" shall mean the process of using an air pollution control device to remove particulates and fumes from air above a pickling bath by entraining the pollutants in water.
- (m) The term "pickling rinse" shall mean a rinse, other than an alkaline cleaning rinse, through which a workpiece is processed. A rinse consisting of a series of rinse tanks is considered as a single rinse.
- (n) The term "off-kilogram (off-pound)" shall mean the mass of copper or copper alloy removed from a forming or ancillary operation at the end of a process cycle for transfer to a different machine or process.
- (o) The term "rolling" shall mean the reduction in the thickness or diameter of a workpiece by passing it between rollers.
- (p) The term "solution heat treatment" shall mean the process introducing a workpiece into a quench bath for the purpose of heat treatment following rolling, drawing or extrusion.
- (q) The term "spent lubricant" shall mean water or an oil-water mixture which is used in forming operations to reduce friction, heat and wear and ultimately discharged.
- (r) The term "Total Toxic Organics (TTO)" shall mean the sum of the masses or concentrations of each of the following toxic organic compounds which is found at a concentration greater than 0.010 mg/l.

Benzene

1,1,1-Trichloroethane chloroform

2,6-Dinitrotoluene ethylbenzene methylene chloride naphthalene

N-nitrosodiphenylamine anthracene phenanthrene toluene trichloroethylene

- (s) The term "alkaline cleaning rinse for forged parts" shall mean a rinse following an alkaline cleaning bath through which a forged part is processed. A rinse consisting of a series of rinse tanks is considered as a single rinse.

- (t) The term "pickling rinse for forged parts" shall mean a rinse, other than an alkaline cleaning rinse, through which forged parts are processed. A rinse consisting of a series of rinse tanks is considered as a single rinse.
- (u) The term "tumbling or burnishing" shall mean the process of polishing, deburring, removing sharp corners, and generally smoothing parts for both cosmetic and functional purposes, as well as the process of washing the finished parts and cleaning the abrasion media.
- (v) The term "surface coating" shall mean the process of coating a copper workpiece as well as the associated surface finishing and flattening.
- (w) The term "miscellaneous waste stream" shall mean the following additional waste streams related to forming copper: hydrotesting, sawing, surface milling, and maintenance.
- (x) The term "precious metals" shall mean gold, platinum, palladium and silver and their alloys. Any alloy containing 30 or greater percent by weight of precious metals is considered a precious metal.
- (y) The term "beryllium copper alloy" shall mean any copper alloy that is alloyed to contain 0.10 percent or greater beryllium.

[48 FR 36957, Aug. 15, 1983; 48 FR 50718, Nov. 3, 1983, as amended at 50 FR 34334, Aug. 23, 1985; 51 FR 7571, Mar. 5, 1986]

### § 468.03 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) As an alternate monitoring procedure for TTO, indirect dischargers may monitor for oil and grease and meet the alternate monitoring standards for oil and grease established for PSES and PSNS. Any indirect discharger meeting the alternate monitoring oil and grease standards shall be considered to meet the TTO standard.

### § 468.04 Compliance date for PSES.

The compliance date for pretreatment standards for existing sources is August 15, 1986.

[48 FR 36957, Aug. 15, 1983, as amended at 48 FR 41410, Sept. 15, 1983]

## Subpart A - Copper Forming Subcategory

### § 468.10 Applicability; description of the copper forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introduction of pollutants into publicly owned treatment works from the forming of copper and copper alloys except beryllium copper alloys.

[51 FR 7571, Mar. 5, 1986]

### § 468.11 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 representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available:

- (a) Subpart A - Hot Rolling Spent Lubricant BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy hot rolled	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy hot rolled	
Chromium	0.045	0.018
Copper	0.195	0.103
Lead	0.015	0.013
Nickel	0.197	0.130
Zinc	0.150	0.062
Oil and grease	2.060	1.236
TSS	4.223	2.008
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(b) Subpart A - Cold Rolling Spent Lubricant BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy cold rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy cold rolled	
Chromium	0.166	0.068
Copper	0.720	0.379
Lead	0.056	0.049
Nickel	0.727	0.481
Zinc	0.553	0.231
Oil and grease	7.580	4.548
TSS	15.539	7.390
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(c) Subpart A - Drawing Spent Lubricant BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy drawn	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy drawn	
Chromium	0.037	0.015
Copper	0.161	0.085
Lead	0.012	0.011
Nickel	0.163	0.107
Zinc	0.124	0.051
Oil and grease	1.700	1.020
TSS	3.485	1.657
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(d) Subpart A - Solution Heat Treatment BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated	
Chromium	1.118	0.457
Copper	4.827	2.541
Lead	0.381	0.330
Nickel	4.878	3.227
Zinc	3.709	1.550
Oil and grease	50.820	30.492
TSS	104.181	49.549
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(e) Subpart A - Extrusion Heat Treatment BPT Effluent Limitations.

<b>Pollutant or pollutant property</b>	<b>Maximum for any 1 day</b>	<b>Maximum for monthly average</b>
	Metric units - mg/off-kg of copper or copper alloy heat treated on an extrusion press	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated on an extrusion press	
Chromium	0.00088	0.00036
Copper	0.003	0.002
Lead	0.0003	0.00026
Nickel	0.003	0.002
Zinc	0.002	0.001
Oil and grease	0.040	0.024
TSS	0.082	0.039
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(f) Subpart A - Annealing With Water BPT Effluent Limitations.

<b>Pollutant or pollutant property</b>	<b>Maximum for any 1 day</b>	<b>Maximum for monthly average</b>
	Metric units - mg/off-kg of copper or copper annealed with water	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with water	
Chromium	2.493	1.020
Copper	10.767	5.667
Lead	0.850	0.736
Nickel	10.880	7.197
Zinc	8.273	3.456
Oil and grease	113.340	68.004
TSS	232.347	110.506
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(g) Subpart A - Annealing With Oil BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with oil	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with oil	
Chromium	0	0
Copper	0	0
Lead	0	0
Nickel	0	0
Zinc	0	0
Oil and grease	0	0
TSS	0	0
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(h) Subpart A - Alkaline Cleaning Rinse BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	1.854	0.758
Copper	8.006	4.214
Lead	0.632	0.547
Nickel	8.090	5.351
Zinc	6.152	2.570
Oil and grease	84.280	50.568
TSS	172.774	82.173
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(i) Subpart A - Alkaline Cleaning Rinse for Forged Parts BPT Effluent Limitations.

<b>Pollutant or pollutant property</b>	<b>Maximum for any 1 day</b>	<b>Maximum for monthly average</b>
	Metric units - mg/off-kg of copper or copper alloy forged parts alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts alkaline cleaned	
Chromium	5.562	2.275
Copper	24.019	12.642
Lead	1.896	1.643
Nickel	24.272	16.055
Zinc	18.457	7.711
Oil and grease	252.840	151.704
TSS	518.322	246.519
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(j) Subpart A - Alkaline Cleaning Bath BPT Effluent Limitations.

<b>Pollutant or pollutant property</b>	<b>Maximum for any 1 day</b>	<b>Maximum for monthly average</b>
	Metric units - mg/off-kg of copper or copper alloy parts alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts alkaline cleaned	
Chromium	0.020	0.0084
Copper	0.089	0.046
Lead	0.0070	0.0060
Nickel	0.089	0.059
Zinc	0.068	0.028
Oil and grease	0.93	0.56
TSS	1.91	0.91
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(k) Subpart A - Pickling Rinse BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per/1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	1.593	0.651
Copper	6.881	3.622
Lead	0.543	0.470
Nickel	6.954	4.599
Zinc	5.288	2.209
Oil and grease	72.440	43.464
TSS	148.502	70.629
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(l) Subpart A - Pickling Rinse for Forged Parts BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts pickled	
	English units - pounds per/1,000,000 off-pounds of copper or copper alloy forged parts pickled	
Chromium	1.723	0.705
Copper	7.444	3.918
Lead	0.587	0.509
Nickel	7.522	4.975
Zinc	5.720	2.389
Oil and grease	78.360	47.016
TSS	160.638	76.401
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(m) Subpart A - Pickling Bath BPT Effluent Limitations.

<b>Pollutant or pollutant property</b>	<b>Maximum for any 1 day</b>	<b>Maximum for monthly average</b>
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickle	
Chromium	0.051	0.020
Copper	0.220	0.116
Lead	0.017	0.015
Nickel	0.222	0.147
Zinc	0.169	0.070
Oil and grease	2.320	1.392
TSS	4.756	2.262
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(n) Subpart A - Pickling Fume Scrubber BPT Effluent Limitations.

<b>Pollutant or pollutant property</b>	<b>Maximum for any 1 day</b>	<b>Maximum for monthly average</b>
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.275	0.112
Copper	1.189	0.626
Lead	0.093	0.081
Nickel	1.201	0.795
Zinc	0.913	0.381
Oil and grease	12.520	7.512
TSS	25.666	12.207
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(o) Subpart A - Tumbling or Burnishing BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy tumbled or burnished	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy tumbled or burnished	
Chromium	0.256	0.104
Copper	1.107	0.583
Lead	0.087	0.075
Nickel	1.119	0.740
Zinc	0.851	0.355
Oil and grease	11.660	6.996
TSS	23.903	11.368
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(p) Subpart A - Surface Coating BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy surface coated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy surface coated	
Chromium	0.326	0.133
Copper	1.411	0.743
Lead	0.111	0.096
Nickel	1.426	0.943
Zinc	1.084	0.453
Oil and grease	14.680	8.916
TSS	30.463	14.488
ph	( <sup>1</sup> )	( <sup>1</sup> )

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

(q) Subpart A - Miscellaneous Waste Streams BPT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy formed	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy formed	
Chromium	0.009	0.003
Copper	0.041	0.021
Lead	0.003	0.002
Nickel	0.041	0.027
Zinc	0.031	0.013
Oil and grease	0.436	0.261
TSS	0.893	0.425
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

**§ 468.12 Effluent limitations 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 must achieve the following effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Subpart A - Hot Rolling Spent Lubricant BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy hot rolled	
	English Units - pounds per 1,000,000 off-pounds of copper or copper alloy hot rolled	
Chromium	0.045	0.018
Copper	0.195	0.103
Lead	0.015	0.013
Nickel	0.197	0.130
Zinc	0.150	0.062

(b) Subpart A - Cold Rolling Spent Lubricant BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy cold rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy cold rolled	
Chromium	0.166	0.068
Copper	0.720	0.379
Lead	0.056	0.049
Nickel	0.727	0.481
Zinc	0.553	0.231

## (c) Subpart A - Drawing Spent Lubricant BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy drawn	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy drawn	
Chromium	0.037	0.015
Copper	0.161	0.085
Lead	0.012	0.011
Nickel	0.163	0.107
Zinc	0.124	0.051

## (d) Subpart A - Solution Heat Treatment BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated	
Chromium	0.284	0.116
Copper	1.227	0.646
Lead	0.096	0.083
Nickel	1.240	0.820

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Zinc	0.943	0.394

(e) Subpart A - Extrusion Heat Treatment BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric Units - mg/off-kg of copper or copper alloy heat treated on an extrusion press	
	English Units - pounds per/1,000,000 off-pounds of copper or copper alloy heat treated on an extrusion press	
Chromium	0.00088	0.00036
Copper	0.003	0.0020
Lead	0.0003	0.00026
Nickel	0.003	0.002
Zinc	0.002	0.001

(f) Subpart A - Annealing with Water BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric Units - mg/off-kg of copper or copper alloy annealed with water	
	English Units - pounds per/1,000,000 off-pounds of copper or copper alloy annealed with water	
Chromium	0.545	0.223
Copper	2.356	1.240
Lead	0.186	0.161
Nickel	2.380	1.574
Zinc	1.810	0.756

(g) Subpart A - Annealing with Oil BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with oil	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with oil	
Chromium	0	0
Copper	0	0
Lead	0	0
Nickel	0	0
Zinc	0	0

## (h) Subpart A - Alkaline Cleaning Rinse BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	1.854	0.758
Copper	8.006	4.214
Lead	0.632	0.547
Nickel	8.090	5.351
Zinc	6.152	2.570

## (i) Subpart A - Alkaline Cleaning Rinse for Forged Parts BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric Units - mg/off-kg of copper or copper alloy forged parts alkaline cleaned	
	English Units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts alkaline cleaned	
Chromium	5.562	2.275
Copper	24.019	12.642
Lead	1.896	1.643
Nickel	24.272	16.055
Zinc	18.457	7.711

## (j) Subpart A - Alkaline Cleaning Bath BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric Units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English Units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	0.020	0.0084
Copper	0.088	0.046
Lead	0.0070	0.0060
Nickel	0.089	0.059
Zinc	0.068	0.028

## (k) Subpart A - Pickling Rinse BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric Units - mg/off-kg of copper or copper alloy pickled	
	English Units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.574	0.235
Copper	2.481	1.306
Lead	0.195	0.169
Nickel	2.507	1.658
Zinc	1.906	0.796

## (l) Subpart A - Pickling Rinse for Forged Parts BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric Units - mg/off-kg of copper or copper alloy forged parts pickled	
	English Units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts pickled	
Chromium	1.723	0.705
Copper	7.444	3.918
Lead	0.587	0.509

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Nickel	7.522	4.975
Zinc	5.720	2.389

(m) Subpart A - Pickling Bath BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.051	0.020
Copper	0.220	0.116
Lead	0.017	0.015
Nickel	0.222	0.147
Zinc	0.169	0.070

(n) Subpart A - Pickling Fume Scrubber BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.275	0.112
Copper	1.189	0.626
Lead	0.093	0.081
Nickel	1.201	0.795
Zinc	0.913	0.381

(o) Subpart A - Tumbling or Burnishing BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy tumbled or burnished	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pound per 1,000,000 off-pounds of copper or copper alloy tumbled or burnished	
Chromium	0.256	0.104
Copper	1.107	0.583
Lead	0.087	0.075
Nickel	1.119	0.740
Zinc	0.851	0.355

(p) Subpart A - Surface Coating BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy surface coated	
	English units - pound per 1,000,000 off-pounds of copper or copper alloy surface coated	
Chromium	0.326	0.133
Copper	1.411	0.743
Lead	0.111	0.096
Nickel	1.426	0.943
Zinc	1.084	0.453

(q) Subpart A - Miscellaneous Waste Streams BAT Effluent Limitations.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy formed	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy formed	
Chromium	0.009	0.003
Copper	0.041	0.021
Lead	0.003	0.002
Nickel	0.041	0.027
Zinc	0.031	0.013

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

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

## (a) Subpart A - Hot Rolling Spent Lubricant NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy hot rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy hot rolled	
Chromium	0.038	0.015
Copper	0.131	0.062
Lead	0.010	0.0092
Nickel	0.056	0.038
Zinc	0.105	0.043
Oil and grease	1.030	1.030
TSS	1.545	1.236
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

## (b) Subpart A - Cold Rolling Spent Lubricant NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy cold rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy cold rolled	
Chromium	0.140	0.056
Copper	0.485	0.231
Lead	0.037	0.034
Nickel	0.208	0.140
Zinc	0.386	0.159
Oil and grease	3.790	3.790
TSS	5.685	4.548
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(c) Subpart A - Drawing Spent Lubricant NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy drawn	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy drawn	
Chromium	0.031	0.012
Copper	0.108	0.051
Lead	0.0085	0.0076
Nickel	0.046	0.031
Zinc	0.086	0.035
Oil and grease	0.85	0.85
TSS	1.275	1.020
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(d) Subpart A - Solution Heat Treatment NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy drawn	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated	
Chromium	0.239	0.096
Copper	0.826	0.394
Lead	0.064	0.058
Nickel	0.355	0.239
Zinc	0.658	0.271
Oil and grease	6.460	6.460
TSS	9.690	7.752
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

## (e) Subpart A - Extrusion Heat Treatment NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated on an extrusion press	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated on and extrusion press	
Chromium	0.00074	0.00030
Copper	0.0020	0.0010
Lead	0.00020	0.00018
Nickel	0.0010	0.00074
Zinc	0.0020	0.00084
Oil and grease	0.020	0.020
TSS	0.030	0.024
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

## (f) Subpart A - Annealing with Water NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with water	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with water	
Chromium	0.458	0.186
Copper	1.587	0.756
Lead	0.124	0.111
Nickel	0.682	0.458
Zinc	1.264	0.520
Oil and grease	12.400	12.400
TSS	18.600	14.880
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

## (g) Subpart A - Annealing with Oil NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with oil	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with oil	
Chromium	0	0
Copper	0	0
Lead	0	0
Nickel	0	0
Zinc	0	0
Oil and grease	0	0
TSS	0	0
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

## (h) Subpart A - Alkaline Cleaning Rinse NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	1.559	0.632
Copper	5.393	2.570
Lead	0.421	0.379
Nickel	2.317	1.559
Zinc	4.298	1.769
Oil and grease	42.140	42.140
TSS	63.210	50.568
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

## (i) Subpart A - Alkaline Cleaning Rinse for Forged Parts NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts alkaline cleaned	
Chromium	4.677	1.896
Copper	16.181	7.711
Lead	1.264	1.137
Nickel	6.953	4.677
Zinc	12.894	5.309
Oil and grease	126.420	126.420
TSS	189.630	151.704
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(j) Subpart A - Alkaline Cleaning Bath NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	0.017	0.0070
Copper	0.059	0.028
Lead	0.0046	0.0042
Nickel	0.025	0.017
Zinc	0.047	0.019
Oil and grease	0.46	0.46
TSS	0.70	0.56
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(k) Subpart A - Pickling Rinse NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per/1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.216	0.087
Copper	0.748	0.356
Lead	0.058	0.052
Nickel	0.321	0.216
Zinc	0.596	0.245
Oil and grease	5.850	5.850
TSS	8.775	7.020
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(l) Subpart A - Pickling Rinse for Forged Parts NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts pickled	
	English units - pounds per/1,000,000 off-pounds of copper or copper alloy forged parts pickled	
Chromium	0.649	0.263
Copper	2.246	1.070
Lead	0.175	0.157
Nickel	0.965	0.649
Zinc	1.790	0.737
Oil and grease	17.550	17.550
TSS	26.325	21.060
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(m) Subpart A - Pickling Bath NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.042	0.017
Copper	0.148	0.070
Lead	0.011	0.010
Nickel	0.063	0.042
Zinc	0.118	0.048
Oil and grease	1.160	1.160
TSS	1.740	1.392
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(n) Subpart A - Pickling Fume Scrubber NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled.	
	English units-pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.231	0.093
Copper	0.801	0.381
Lead	0.062	0.056
Nickel	0.344	0.231
Zinc	0.638	0.262
Oil and grease	6.260	6.260
TSS	9.390	7.512
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(o) Subpart A - Tumbling or Burnishing NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper tumbled or burnished	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy tumbled or burnished	
Chromium	0.215	0.087
Copper	0.746	0.355
Lead	0.058	0.052
Nickel	0.320	0.215
Zinc	0.594	0.244
Oil and grease	5.830	5.830
TSS	8.745	6.996
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(p) Subpart A - Surface Coating NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy surface coated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy surface coated	
Chromium	0.274	0.111
Copper	0.951	0.453
Lead	0.074	0.066
Nickel	0.408	0.274
Zinc	0.757	0.312
Oil and grease	7.430	7.430
TSS	11.145	8.916
pH	( <sup>1</sup> )	( <sup>1</sup> )

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

(q) Subpart A - Miscellaneous Waste Streams NSPS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy formed	
	English units - pounds/1,000,000 off-pounds of copper or copper alloy formed	
Chromium	0.008	0.003
Copper	0.027	0.013
Lead	0.0021	0.0019
Nickel	0.011	0.008
Zinc	0.022	0.009
Oil and grease	0.218	0.218
TSS	0.327	0.261
pH	( <sup>1</sup> )	( <sup>1</sup> )

Within the range of 7.5 to 10.0 at all times.

[48 FR 36957, Aug. 15, 1983; 48 FR 50718, Nov. 3, 1983]

#### § 468.14 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 achieve the following pretreatment standards for existing sources:

- (a) Subpart A - Hot Rolling Spent Lubricant PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy hot rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy hot rolled	
Chromium	0.045	0.018
Copper	0.195	0.103
Lead	0.015	0.013
Nickel	0.197	0.130
Zinc	0.150	0.062
TTO	0.066	0.035
Oil and grease <sup>1</sup>	2.060	1.236

<sup>1</sup> For alternate monitoring.

## (b) Subpart A - Cold Rolling Spent Lubricant PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy cold rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy cold rolled	
Chromium	0.166	0.068
Copper	0.720	0.379
Lead	0.056	0.049
Nickel	0.727	0.481
Zinc	0.553	0.231
TTO	0.246	0.128
Oil and grease <sup>1</sup>	7.580	4.548

<sup>1</sup> For alternate monitoring.

## (c) Subpart A - Drawing Spent Lubricant PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy drawn	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy drawn	
Chromium	0.037	0.015
Copper	0.161	0.085
Lead	0.012	0.011
Nickel	0.163	0.107
Zinc	0.124	0.051
TTO	0.055	0.028
Oil and grease <sup>1</sup>	1.700	1.020

<sup>1</sup> For alternate monitoring.

## (d) Subpart A - Solution Heat Treatment PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated	
Chromium	0.284	0.116
Copper	1.227	0.646
Lead	0.096	0.083
Nickel	1.240	0.820
Zinc	0.943	0.394
TTO	0.419	0.219
Oil and grease <sup>1</sup>	12.920	7.752

<sup>1</sup> For alternate monitoring.

(e) Subpart A - Extrusion Heat Treatment PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated on an extrusion press	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated on an extrusion press	
Chromium	0.00088	0.00036
Copper	0.0030	0.0020
Lead	0.00030	0.00026
Nickel	0.0030	0.0020
Zinc	0.0020	0.0010
TTO	0.0010	0.00068
Oil and grease <sup>1</sup>	0.040	0.024

<sup>1</sup> For alternate monitoring.

(f) Subpart A - Annealing with Water PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with water	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with water	
Chromium	0.545	0.223
Copper	2.356	1.240
Lead	0.186	0.161
Nickel	2.380	1.574
Zinc	1.810	0.756
TTO	0.806	0.421
Oil and grease <sup>1</sup>	24.800	14.880

<sup>1</sup> For alternate monitoring.

(g) Subpart A - Annealing With Oil PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with oil	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with oil	
Chromium	0	0
Copper	0	0
Lead	0	0
Nickel	0	0
Zinc	0	0
TTO	0	0
Oil and grease <sup>1</sup>	0	0

<sup>1</sup> For alternate monitoring.

(h) Subpart A - Alkaline Cleaning Rinse PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000-off pounds of copper or copper alloy alkaline cleaned	
Chromium	1.854	0.758
Copper	8.006	4.214
Lead	0.632	0.547
Nickel	8.090	5.351
Zinc	6.152	2.570
TTO	2.739	1.432
Oil and grease <sup>1</sup>	84.280	50.568

<sup>1</sup> For alternate monitoring.

- (i) Subpart A - Alkaline Cleaning Rinse for Forged Parts PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts alkaline cleaned	
	English units - pounds per 1,000,000 off - pounds of copper or copper alloy forged parts alkaline cleaned	
Chromium	5.562	2.275
Copper	24.019	12.642
Lead	1.896	1.643
Nickel	24.272	16.055
Zinc	18.457	7.711
TTO	8.217	4.298
Oil and grease <sup>1</sup>	252.840	151.704

<sup>1</sup> For alternate monitoring.

- (j) Subpart A - Alkaline Cleaning Bath PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off - pounds of copper or copper alloy alkaine cleaned	
Chromium	0.020	0.0084
Copper	0.088	0.046
Lead	0.0070	0.0060
Nickel	0.089	0.059
Zinc	0.068	0.028
TTO	0.030	0.015
Oil and grease <sup>1</sup>	0.93	0.56

<sup>1</sup> For alternate monitoring.

(k) Subpart A - Pickling Rinse PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 of pounds of copper or copper alloy pickled	
Chromium	0.574	0.235
Copper	2.481	1.306
Lead	0.195	0.169
Nickel	2.507	1.658
Zinc	1.906	0.796
TTO	0.848	0.444
Oil and grease <sup>1</sup>	26.120	15.672

<sup>1</sup> For alternate monitoring.

(l) Subpart A - Pickling Rinse for Forged Parts PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts pickled	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts pickled	
Chromium	1.723	0.705
Copper	7.444	3.918
Lead	0.587	0.509
Nickel	7.522	4.975
Zinc	5.720	2.389
TTO	2.546	1.332
Oil and grease <sup>1</sup>	78.360	47.016

<sup>1</sup> For alternate monitoring.

(m) Subpart A - Pickling Bath PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.051	0.020
Copper	0.220	0.116
Lead	0.017	0.015
Nickel	0.222	0.147
Zinc	0.169	0.070
TTO	0.075	0.039
Oil and grease <sup>1</sup>	2.320	1.392

<sup>1</sup> For alternate monitoring.

(n) Subpart A - Pickling Fume Scrubber PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.275	0.112
Copper	1.189	0.626
Lead	0.093	0.081
Nickel	1.201	0.795
Zinc	0.913	0.381
TTO	0.406	0.212
Oil and grease <sup>1</sup>	12.520	7.512

<sup>1</sup> For alternate monitoring.

(o) Subpart A - Tumbling or Burnishing PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy tumbled or burnished	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy tumbled or burnished	
Chromium	0.256	0.104
Copper	1.107	0.583
Lead	0.087	0.075
Nickel	1.119	0.740
Zinc	0.851	0.355
TTO	0.378	0.198
Oil and grease <sup>1</sup>	11.660	6.996

<sup>1</sup> For alternate monitoring.

(p) Subpart A - Surface Coating PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy surface coated	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy surface coated	
Chromium	0.326	0.133
Copper	1.411	0.743
Lead	0.111	0.096
Nickel	1.426	0.943
Zinc	1.084	0.453
TTO	0.482	0.252
Oil and grease <sup>1</sup>	14.860	8.916

<sup>1</sup> For alternate monitoring.

(q) Subpart A - Miscellaneous Waste Streams PSES.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy formed	
	English units - pounds per 1,000,000 off pounds of copper or copper alloy formed	
Chromium	0.009	0.003
Copper	0.041	0.021
Lead	0.003	0.002
Nickel	0.041	0.027
Zinc	0.031	0.013
TTO	0.014	0.007
Oil and grease <sup>1</sup>	0.436	0.261

<sup>1</sup> For alternate monitoring.

[48 FR 36957, Aug. 15, 1983, as amended at 51 FR 22521, June 20, 1986]

#### § 468.15 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 sources for new sources:

(a) Subpart A - Hot Rolling Spent Lubricant PSNS.

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy hot rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy hot rolled	
Chromium	0.038	0.015
Copper	0.131	0.062
Lead	0.010	0.0092
Nickel	0.056	0.038
Zinc	0.105	0.043
TTO	0.035	0.035
Oil and grease <sup>1</sup>	1.030	1.030

<sup>1</sup> For alternate monitoring.

(b) Subpart A - Cold Rolling Spent Lubricant PSNS.

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy cold rolled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy cold rolled	
Chromium	0.140	0.056
Copper	0.485	0.231
Lead	0.037	0.034
Nickel	0.208	0.140
Zinc	0.386	0.159
TTO	0.128	0.128
Oil and grease <sup>1</sup>	3.790	3.790

<sup>1</sup> For alternate monitoring.

(c) Subpart A - Drawing Spent Lubricant PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy drawn	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy drawn	
Chromium	0.031	0.012
Copper	0.108	0.051
Lead	0.0085	0.0076
Nickel	0.046	0.031
Zinc	0.086	0.035
TTO	0.028	0.028
Oil and grease <sup>1</sup>	0.850	0.850

<sup>1</sup> For alternate monitoring.

(d) Subpart A - Solution Heat Treatment PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated	
Chromium	0.239	0.096
Copper	0.826	0.394
Lead	0.064	0.058
Nickel	0.355	0.239
Zinc	0.658	0.271
TTO	0.219	0.219
Oil and grease <sup>1</sup>	6.460	6.460

<sup>1</sup> For alternate monitoring.

(e) Subpart A - Extrusion Heat Treatment PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy heat treated on an extrusion press	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy heat treated on an extrusion press	
Chromium	0.00074	0.00030
Copper	0.0020	0.0010
Lead	0.00020	0.00018
Nickel	0.0010	0.00074
Zinc	0.0020	0.00084
TTO	0.00068	0.00068
Oil and grease <sup>1</sup>	0.020	0.020

<sup>1</sup> For alternate monitoring.

(f) Subpart A - Annealing with Water PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with water	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with water	
Chromium	0.458	0.186
Copper	1.587	0.756
Lead	0.124	0.111
Nickel	0.682	0.458
Zinc	1.264	0.520
TTO	0.421	0.421
Oil and grease <sup>1</sup>	12.400	12.400

<sup>1</sup> For alternate monitoring.

(g) Subpart A - Annealing With Oil PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy annealed with oil	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy annealed with oil	
Chromium	0	0
Copper	0	0
Lead	0	0
Nickel	0	0
Zinc	0	0
TTO	0	0
Oil and grease <sup>1</sup>	0	0

<sup>1</sup> For alternate monitoring.

(h) Subpart A - Alkaline Cleaning Rinse PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	1.559	0.632
Copper	5.393	2.570
Lead	0.421	0.379
Nickel	2.317	1.559
Zinc	4.298	1.769
TTO	1.432	1.432
Oil and grease <sup>1</sup>	42.140	42.140

<sup>1</sup> For alternate monitoring.

(i) Subpart A - Alkaline Cleaning Rinse for Forged Parts PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts alkaline cleaned	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts alkaline cleaned	
Chromium	4.677	1.896
Copper	16.181	7.711
Lead	1.264	1.137
Nickel	6.953	4.677
Zinc	12.894	5.309
TTO	4.298	4.298
Oil and grease <sup>1</sup>	126.420	126.420

<sup>1</sup> For alternate monitoring.

(j) Subpart A - Alkaline Cleaning Bath PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy alkaline cleaned	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy alkaline cleaned	
Chromium	0.017	0.0070
Copper	0.059	0.028
Lead	0.0046	0.0042
Nickel	0.025	0.017
Zinc	0.047	0.019
TTO	0.015	0.015
Oil and grease <sup>1</sup>	0.46	0.46

<sup>1</sup> For alternate monitoring.

(k) Subpart A - Pickling Rinse PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.216	0.087
Copper	0.748	0.356
Lead	0.058	0.052
Nickel	0.321	0.216
Zinc	0.596	0.245
TTO	0.198	0.198
Oil and grease <sup>1</sup>	5.850	5.850

<sup>1</sup> For alternate monitoring.

(l) Subpart A - Pickling Rinse for Forged Parts PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy forged parts pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy forged parts pickled	
Chromium	0.649	0.263
Copper	2.246	1.070
Lead	0.175	0.157
Nickel	0.965	0.649
Zinc	1.790	0.737
TTO	0.596	0.596
Oil and grease <sup>1</sup>	17.550	17.550

<sup>1</sup> For alternate monitoring.

(m) Subpart A - Pickling Bath PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.042	0.017
Copper	0.148	0.070
Lead	0.011	0.010
Nickel	0.063	0.042
Zinc	0.118	0.048
TTO	0.039	0.039
Oil and grease <sup>1</sup>	1.160	1.160

<sup>1</sup> For alternate monitoring.

(n) Subpart A - Pickling Fume Scrubber PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy pickled	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy pickled	
Chromium	0.231	0.093
Copper	0.801	0.381
Lead	0.062	0.056
Nickel	0.344	0.231
Zinc	0.638	0.262
TTO	0.212	0.212
Oil and grease <sup>1</sup>	6.260	6.260

<sup>1</sup> For alternate monitoring.

(o) Subpart A - Tumbling or Burnishing PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy tumbled or burnished	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy tumbled or burnished	
Chromium	0.215	0.087
Copper	0.746	0.355
Lead	0.058	0.052
Nickel	0.320	0.215
Zinc	0.594	0.244
TTO	0.198	0.198
Oil and grease <sup>1</sup>	5.830	5.830

<sup>1</sup> For alternate monitoring.

(p) Subpart A - Surface Coating PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy surface coated	
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy surface coated	
Chromium	0.274	0.111
Copper	0.951	0.453
Lead	0.074	0.066
Nickel	0.408	0.274
Zinc	0.757	0.312
TTO	0.252	0.252
Oil and grease <sup>1</sup>	7.430	7.430

<sup>1</sup> For alternate monitoring.

(q) Subpart A - Miscellaneous Waste Streams PSNS.

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	Metric units - mg/off-kg of copper or copper alloy formed	

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	English units - pounds per 1,000,000 off-pounds of copper or copper alloy formed	
Chromium	0.008	0.003
Copper	0.027	0.013
Lead	0.0021	0.0019
Nickel	0.011	0.008
Zinc	0.022	0.009
TTO	0.007	0.007
Oil and grease <sup>1</sup>	0.218	0.218

<sup>1</sup> For alternate monitoring.

[48 FR 36957, Aug. 15, 1983; 48 FR 50719, Nov. 3, 1983]

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

## **Subpart B - Beryllium Copper Forming Subcategory**

**§ 468.20 Applicability; description of the beryllium copper forming subcategory.**

This subpart applies to discharges of pollutants to waters of the United States, and introduction of pollutants into publicly owned treatment works from the forming of beryllium copper alloys.

[51 FR 7571, Mar. 5, 1986]