Subpart D—Luminescent Materials Subcategory

AUTHORITY: Secs. 301, 304, 306, 307, 308, 309, 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, 33 U.S.C. 1311, 1314, 1316, 1317, 1318, and 1361; 86 Stat. 816, Pub. L. 92–500; 91 Stat. 1567, Pub. L. 95–217).

SOURCE: 48 FR 55704, Dec. 14, 1983, unless otherwise noted.

§ 469.40 Applicability.

The provisions of this subpart are applicable to discharges resulting from the manufacture of luminescent materials.

§ 469.41 Specialized definitions.

The definitions in 40 CFR part 401 and the chemical analysis methods in 40 CFR part 136 apply to this subpart. In addition,

(a) The term ''luminescent materials'' shall mean materials that emit light upon excitation by such energy sources as photons, electrons, applied voltage, chemical reactions or mechanical energy and which are specifically used as coatings in fluorescent lamps and cathode ray tubes. Luminescent materials include, but are not limited to, calcium halophosphate, yttrium oxide, zinc sulfide, and zinc-cadmium sulfide.

§ 469.42 New source performance standards (NSPS).

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

Pollutant or pollutant property	Maximum for any 1 day	Monthly average shall not exceed
	Milligrams per liter (mg/l)	
pH	(1)	(1)
Cadmium	0.55	0.26
Antimony	0.10	0.04
Zinc	1.64	0.67
Fluoride	35.0	18.0
TSS	60.0	31.0

[1] Within the range of 6.0 to 9.0.

§ 469.43 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 standards for new sources (PSNS):

Pollutant property	For any 1 day	Monthly average shall not exceed
	Milligrams per liter (mg/l)	
Cadmium	0.55	0.26
Antimony	0.10	0.04
Zinc	1.64	0.67
Fluoride	35.0	18.0

PART 471—NONFERROUS METALS FORMING AND METAL POWDERS POINT SOURCE CATEGORY

GENERAL PROVISIONS

Subpart A—Lead-Tin-Bismuth Forming Subcategory

Subpart B—Magnesium Forming Subcategory

Subpart C—Nickel-Cobalt Forming Subcategory

Subpart D—Precious Metals Forming Subcategory

Subpart E—Refractory Metals Forming Subcategory

Subpart F—Titanium Forming Subcategory

Subpart G—Uranium Forming Subcategory

Subpart H—Zinc Forming Subcategory

Subpart I—Zirconium-Hafnium Forming Subcategory

Subpart J—Metal Powders Subcategory

AUTHORITY: Secs. 301, 304(b), (c), (e), and (g), 306(b) and (c), 307, 308, 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), and 1361; 86 Stat. 816, Pub. L. 92–500; 91 Stat. 1567, Pub. L. 95–217.

SOURCE: 50 FR 34270, Aug. 23, 1985, unless otherwise noted.

GENERAL PROVISIONS

§ 471.01 Applicability.

(a) This part applies to discharges of pollutants to waters of the United States and introduction of pollutants into a publicly owned treatment works from the forming of nonferrous metals (including nonferrous metal alloys), except beryllium, copper, and aluminum and their alloys. Aluminum alloys are defined as any alloy in which aluminum is the major constituent in percent by weight. Copper alloys are defined as any alloy in which copper is the major constituent in percent by weight except when copper is alloyed with precious metals. Any copper-precious metal alloy containing 30 percent or greater precious metal is considered a precious metal alloy for the purposes of this part. Beryllium alloys are any alloy in which beryllium is present at 0.1 percent or greater. This part applies to:

(1) Forming operations, including rolling (both hot and cold), extruding,

forging, drawing, swaging, cladding, and tube reducing, and

(2) Ancillary operations performed as an integral part of the forming of these metals, including casting for subsequent forming, heat treatment, surface treatment, alkaline cleaning, solvent degreasing, product testing, surface coating, sawing, grinding, tumbling, burnishing, and wet air pollution control.

(b) This part also applies to discharges of pollutants to waters of the United States and introduction of pollutants into a publicly owned treatment works from mechanical metal powder production operations, forming of parts from metal powders, and associated ancillary operations (listed in paragraph (a)(2) of this section) of:

(1) Iron, copper, and aluminum, and their alloys; and

(2) The nonferrous metals and their alloys described in paragraph (a) of this section. This part does not regulate the production of metal powders by chemical means such as precipitation. The production of metal powder as the final step in refining metal is regulated under the Nonferrous Metals Manufacturing Point Source Category regulation, 40 CFR part 421.

(c) Surface treatment includes any chemical or electrochemical treatment applied to the surface of the metal. For the purposes of this regulation, surface treatment of metals is considered to be an integral part of the forming of metals whenever it is performed at the same plant site at which the metals are formed. Such surface treatment operations are not regulated under the Electroplating or Metal Finishing Point Source Category regulations, 40 CFR part 413 or 433, respectively.

(d) Casting is covered by this part when it is performed as an integral part of the metal forming process and takes place at the same plant site at which metals are formed. Such casting will not be regulated under the provisions of Metal Molding and Casting Point Source Category regulations, 40 CFR part 464.

(e) This part does not apply to the forming of the metals cadmium, chromium, gallium, germanium, indium, lithium, manganese, neodymium, or praseodymium.

§ 471.02 General definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) ''Nonferrous metal'' is any pure metal other than iron or any metal alloy for which a metal other than iron is its major constituent in percent by weight.

(b) ''Forming'' is a set of manufacturing operations in which metals and alloys are made into semifinished products by hot or cold working.

(c) ''Alkaline cleaning'' uses a solution (bath), usually detergent, to remove lard, oil, and other such compounds from a metal surface. Alkaline cleaning is usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, an alkaline cleaning operation is defined as a bath followed by a rinse, regardless of the number of rinse stages. Each alkaline cleaning bath and rinse combination is entitled to a discharge allowance.

(d) ''Atomization'' is the process in which a stream of water or gas impinges upon a molten metal stream, breaking it into droplets which solidify as powder particles.

(e) ''Burnishing'' is a surface finishing process in which minute surface irregularities are displaced rather than removed.

(f) ''Casting'' is pouring molten metal into a mold to produce an object of desired shape.

(g) ''Cladding'' or ''metal cladding'' is the art of producing a composite metal containing two or more layers that have been metallurgically bonded together by roll bonding (co-rolling), solder application (or brazing), or explosion bonding.

(h) ''Contact cooling water'' is any wastewater which contacts the metal workpiece or the raw materials used in forming metals for the purpose of removing heat from the metal.

(i) ''Continuous casting'' is the production of sheet, rod, or other long shapes by solidifying the metal while it is being poured through an open-ended mold.

(j) ''Degreasing'' is the removal of oils and greases from the surface of the metal workpiece. This process can be

accomplished with detergents as in alkaline cleaning or by the use of solvents.

(k) ''Direct chill casting'' is the pouring of molten nonferrous metal into a water-cooled mold. Contact cooling water is sprayed onto the metal as it is dropped into the mold, and the metal ingot falls into a water bath at the end of the casting process.

(l) ''Drawing'' is the process of pulling a metal through a die or succession of dies to reduce the metal's diameter or alter its cross-sectional shape.

(m) ''Dye penetrant testing'' is a nondestructive method for finding discontinuities that are open to the surface of the metal. A dye is applied to the surface of metal and the excess is rinsed off. Dye that penetrates surface discontinuities will not be rinsed away thus marking these discontinuities.

(n) ''Emulsions'' are stable dispersions of two immiscible liquids. In the Nonferrous Metals Forming and Metal Powders Point Source category, this is usually an oil and water mixture.

(o) ''Electrocoating'' is the electrodeposition of a metallic or nonmetallic coating onto the surface of a workpiece.

(p) ''Extrusion'' is the application of pressure to a billet of metal, forcing the metal to flow through a die orifice.

(q) ''Forging'' is deforming metal, usually hot, with compressive force into desired shapes, with or without dies. Where dies are used, the metal is forced to take the shape of the die.

(r) ''Grinding'' is the process of removing stock from a workpiece by the use of a tool consisting of abrasive grains held by a rigid or semi-rigid grinder. Grinding includes surface finishing, sanding, and slicing.

(s) ''Heat treatment'' is the application of heat of specified temperature and duration to change the physical properties of the metal.

(t) ''Hot pressing'' is forming a powder metallurgy compact at a temperature high enough to effect concurrent sintering.

(u) ''Hydrotesting'' is the testing of piping or tubing by filling with water and pressurizing to test for integrity.

(v) ''Impregnation'' is the process of filling pores of a formed powder part, usually with a liquid such as a lubricant, or mixing particles of a nonmetallic substance in a matrix of metal powder.

(w) ''In-process control technology'' is the conservation of chemicals and water throughout the production operations to reduce the amount of wastewater to be discharged.

(x) ''Metal powder production'' operations are mechanical process operations which convert metal to a finely divided form.

(y) ''Milling'' is the mechanical treatment of a nonferrous metal to produce powder, or to coat one component of a powder mixture with another.

(z) ''Neat oil'' is a pure oil with no or few impurities added. In nonferrous metals forming, its use is mostly as a lubricant.

(aa) ''Powder forming'' includes forming and compressing powder into a fully dense finished shape, and is usually done within closed dies.

(bb) ''Precious metals'' include 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 alloy.

(cc) ''Product testing'' includes operations such as dye penetrant testing, hydrotesting, and ultrasonic testing.

(dd) ''Refractory metals'' includes the metals of columbium, tantalum, molybdenum, rhenium, tungsten and vanadium and their alloys.

(ee) ''Rolling'' is the reduction in thickness or diameter of a workpiece by passing it between lubricated steel rollers.

(ff) ''Roll bonding'' is the process by which a permanent bond is created between two metals by rolling under high pressure in a bonding mill (co-rolling).

(gg) ''Sawing'' is cutting a workpiece with a band, blade, or circular disc having teeth.

(hh) ''Shot casting'' is the production of shot by pouring molten metal in finely divided streams to form spherical particles.

(ii) ''Stationary casting'' is the pouring of molten metal into molds and allowing the metal to cool.

(jj) ''Surface treatment'' is a chemical or electrochemical treatment applied to the surface of a metal. Such treatments include pickling, etching,

conversion coating, phosphating, and chromating. Surface treatment baths are usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, a surface treatment operation is defined as a bath followed by a rinse, regardless of the number of stages. Each surface treatment bath, rinse combination is entitled to discharge allowance.

(kk) ''Swaging'' is a process in which a solid point is formed at the end of a tube, rod, or bar by the repeated blows of one or more pairs of opposing dies.

(ll) ''Tube reducing'' is an operation which reduces the diameter and wall thickness of tubing with a mandrel and a pair of rolls with tapered grooves.

(mm) ''Tumbling'' or ''barrel finishing'' is an operation in which castings, forgings, or parts pressed from metal powder are rotated in a barrel with ceramic or metal slugs or abrasives to remove scale, fins, or burrs. It may be done dry or with an aqueous solution.

(nn) ''Ultrasonic testing'' is a nondestructive test which applies sound, at a frequency above about 20 HJz, to metal, which has been immersed in liquid (usually water) to locate inhomogeneities or structural discontinuities.

(oo) ''Wet air pollution control scrubbers'' are air pollution control devices used to remove particulates and fumes from air by entraining the pollutants in a water spray.

(pp) ''Grab sample'' is a single sample which is collected at a time and place most representative of total discharge.

(qq) ''Composite sample'' is a sample composed of no less than eight grab samples taken over the compositing period.

(rr) A ''flow proportional composite sample'' is composed of grab samples collected continuously or discretely in proportion to the total flow at time of collection or to the total flow since collection of the previous grab sample. The grab volume or frequency of grab collection may be varied in proportion to flow.

(ss) The term ''control authority'' is defined as the POTW if it has an approved pretreatment program; in the absence of such a program, the NPDES State if it has an approved pretreatment program or EPA if the State does not have an approved program.

(tt) ''Continuous operations'' means that the industrial user introduces regulated wastewaters to the POTW throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

(uu) ''Intermittent operations'' means the industrial users does not have a continuous operation.

(vv) The term ''off-kg (off-lb)'' means the mass of metal or metal alloy removed from a forming operation at the end of a process cycle for transfer to a different machine or process.

§ 471.03 Compliance date for PSES.

The compliance date for PSES under this regulation is August 23, 1988.

Subpart A—Lead-Tin-Bismuth Forming Subcategory

§ 471.10 Applicability; description of the lead-tin-bismuth 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 lead-tin-bismuth forming subcategory.

§ 471.11 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 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 emulsions.*

conversion coating, phosphating, and chromating. Surface treatment baths are usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, a surface treatment operation is defined as a bath followed by a rinse, regardless of the number of stages. Each surface treatment bath, rinse combination is entitled to discharge allowance.

(kk) ''Swaging'' is a process in which a solid point is formed at the end of a tube, rod, or bar by the repeated blows of one or more pairs of opposing dies.

(ll) ''Tube reducing'' is an operation which reduces the diameter and wall thickness of tubing with a mandrel and a pair of rolls with tapered grooves.

(mm) ''Tumbling'' or ''barrel finishing'' is an operation in which castings, forgings, or parts pressed from metal powder are rotated in a barrel with ceramic or metal slugs or abrasives to remove scale, fins, or burrs. It may be done dry or with an aqueous solution.

(nn) ''Ultrasonic testing'' is a nondestructive test which applies sound, at a frequency above about 20 HJz, to metal, which has been immersed in liquid (usually water) to locate inhomogeneities or structural discontinuities.

(oo) ''Wet air pollution control scrubbers'' are air pollution control devices used to remove particulates and fumes from air by entraining the pollutants in a water spray.

(pp) ''Grab sample'' is a single sample which is collected at a time and place most representative of total discharge.

(qq) ''Composite sample'' is a sample composed of no less than eight grab samples taken over the compositing period.

(rr) A ''flow proportional composite sample'' is composed of grab samples collected continuously or discretely in proportion to the total flow at time of collection or to the total flow since collection of the previous grab sample. The grab volume or frequency of grab collection may be varied in proportion to flow.

(ss) The term ''control authority'' is defined as the POTW if it has an approved pretreatment program; in the absence of such a program, the NPDES State if it has an approved pretreatment program or EPA if the State does not have an approved program.

(tt) ''Continuous operations'' means that the industrial user introduces regulated wastewaters to the POTW throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

(uu) ''Intermittent operations'' means the industrial users does not have a continuous operation.

(vv) The term ''off-kg (off-lb)'' means the mass of metal or metal alloy removed from a forming operation at the end of a process cycle for transfer to a different machine or process.

§ 471.03 Compliance date for PSES.

The compliance date for PSES under this regulation is August 23, 1988.

Subpart A—Lead-Tin-Bismuth Forming Subcategory

§ 471.10 Applicability; description of the lead-tin-bismuth 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 lead-tin-bismuth forming subcategory.

§ 471.11 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 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 emulsions.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with emulsions	
Antimony	0.068	0.030
Lead	0.010	0.005
Oil and grease	0.468	0.281
TSS	0.960	0.457
pH		(1)

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

(b) *Rolling spent soap solutions.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pound) of lead-tin-bismuth rolled with soap solutions	
Antimony	0.125	0.055
Lead	0.019	0.009
Oil and grease	0.860	0.520
TSS	1.80	0.840
pH		(1)

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

(c) *Drawing spent neat oils—Subpart A—BPT.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with emulsions	
Antimony	0.076	0.034
Lead	0.011	0.005
Oil and grease	0.526	0.316
TSS	1.08	0.513
pH		(1)

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

(e) *Drawing spent soap solutions.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with soap solutions	
Antimony	0.022	0.010
Lead	0.003	0.002
Oil and grease	0.149	0.090
TSS	0.306	0.146
pH		(1)

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

(f) *Extrusion press and solution heat treatment contact cooling water.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds of lead-tin-bismuth heat treated	
Antimony	4.14	1.850
Lead	0.605	0.288
Oil and grease	28.80	17.30
TSS	59.10	28.10
pH		(1)

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

(g) *Extrusion press hydraulic fluid leakage.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011
Oil and grease	1.10	0.660
TSS	2.26	1.07
pH		(1)

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

(h) *Continuous strip casting contact cooling water.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002
Oil and grease	0.020	0.012
TSS	0.041	0.020
pH		[1]

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

(i) *Semi-continuous ingot casting contact cooling water.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth ingot cast by the sem-continuous method	
Antimony	0.085	0.038
Lead	0.013	0.006
Oil and grease	0.588	0.353
TSS	1.21	0.574
pH		[1]

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

(j) *Shot casting contact cooling water.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008
Oil and grease	0.746	0.448
TSS	1.53	0.728
pH		[1]

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

(k) *Shot-forming wet air pollution control scrubber blowdown.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot formed	
Antimony	1.69	0.753
Lead	0.247	0.118
Oil and grease	11.8	7.06
TSS	24.1	11.5
pH		[1]

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

(l) *Alkaline cleaning spent baths.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.345	0.154
Lead	0.051	0.024
Oil and grease	2.40	1.44
TSS	4.92	2.34
pH		[1]

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

(m) *Alkaline cleaning rinse.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	6.78	3.02
Lead	0.991	0.472
Oil and grease	47.2	28.4
TSS	96.8	46.0
pH		[1]

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

(n) *Swaging spent emulsions.*

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth swaged with emulsion	
Antimony	0.005	0.002
Lead	0.0007	0.0004
Oil and grease	0.036	0.022
TSS	0.073	0.034
pH		(1)

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

(o) *Degreasing spent solvents—Subpart A—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent emulsions.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with emulsion	
Antimony	0.067	0.030
Lead	0.010	0.005

(b) *Rolling spent soap solutions.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with soap solutions	
Antimony	0.120	0.055
Lead	0.018	0.009

(c) *Drawing spent neat oils—Subpart A—BAT.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with emulsions	
Antimony	0.080	0.034
Lead	0.011	0.005

(e) *Drawing spent soap solutions.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with soap solutions	
Antimony	0.022	0.010
Lead	0.003	0.002

(f) *Extrusion press and solution heat treatment contact colling water.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds/per million off-pounds) of lead-tin-bismuth heat treated	
Antimony	0.414	0.185
Lead	0.061	0.030

(g) *Extrusion press hydraulic fluid leakage.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds/per million off-pounds) of lead-tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011

(h) Continuous strip casting contact cooling water.

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002

(i) *Semi-continuous ingot casting contact cooling water.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the continuous strip method	
Antimony	0.009	0.004
Lead	0.001	0.0006

(j) *Shot casting contact cooling water.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008

(k) *Shot-forming wet air pollution control scrubber blowdown.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot formed	
Antimony	0.169	0.076
Lead	0.025	0.012

(l) *Alkaline cleaning spent baths.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.345	0.154
Lead	0.051	0.024

(m) *Alkaline cleaning rinse.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.678	0.302
Lead	0.099	0.047

(n) *Swaging spent emulsions.*

SUBPART A—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth swaged with emulsion	
Antimony	0.005	0.002
Lead	0.0008	0.0004

(o) *Degreasing spent solvents—Subpart A—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.13 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards. The mass of pollutants in the lead-tin-bismuth forming operations' process wastewater shall not exceed the following values:

(a) *Rolling spent emulsions.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with emulsions	
Antimony	0.067	0.030
Lead	0.010	0.005
Oil and grease	0.468	0.281
TSS	0.960	0.457
pH		(1)

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

(b) *Rolling spent soap solutions.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with soap solutions	
Antimony	0.120	0.055
Lead	0.018	0.009
Oil and grease	0.860	0.520
TSS	1.80	0.840
pH		(1)

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

(c) *Drawing spent neat oils—Subpart A—NSPS.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with emulsions	
Antimony	0.076	0.034
Lead	0.011	0.005
Oil and grease	0.526	0.316
TSS	1.087	0.513
pH		(1)

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

(e) *Drawing spent soap solutions.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with soap solutions	
Antimony	0.022	0.010
Lead	0.003	0.002
Oil and grease	0.149	0.090
TSS	0.306	0.146
pH		(1)

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

(f) *Extrusion press and solution heat treatment contact cooling water.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth heat treated	
Antimony	0.414	0.185
Lead	0.061	0.030
Oil and grease	2.80	1.72
TSS	5.91	2.81
pH		(1)

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

(g) *Extrusion press hydraulic fluid leakage.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011
Oil and grease	1.10	0.660
TSS	2.26	1.07
pH		(1)

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

(h) *Continuous strip casting contact cooling water.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002
Oil and grease	0.020	0.012
TSS	0.041	0.020
pH	.....	[1]

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

(i) *Semi-continuous ingot casting contact cooling water.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth ingot cast by the semi-continuous method	
Antimony	0.009	0.004
Lead	0.001	0.0006
Oil and grease	0.059	0.036
TSS	0.121	0.058
pH	.....	[1]

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

(j) *Shot casting contact cooling water.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008
Oil and grease	0.746	0.448
TSS	1.53	0.728
pH	.....	[1]

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

(k) *Shot-forming wet air pollution control scrubber blowdown.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot formed	
Antimony	0.169	0.076
Lead	0.025	0.012
Oil and grease	1.18	0.706
TSS	2.41	1.15
pH	.....	[1]

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

(l) *Alkaline cleaning spent baths.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.345	0.154
Lead	0.051	0.024
Oil and grease	2.40	1.44
TSS	4.92	2.34
pH	.....	[1]

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

(m) *Alkaline cleaning rinse.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.678	0.302
Lead	0.099	0.047
Oil and grease	4.72	2.84
TSS	9.68	4.60
pH	.....	[1]

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

(n) *Swaging spent emulsions.*

SUBPART A—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth swaged with emulsion	
Antimony	0.005	0.002
Lead	0.0008	0.0004
Oil and grease	0.036	0.022
TSS	0.073	0.035
pH		(1)

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

(o) *Degreasing spent solvents—Subpart A—NSPS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.14 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 by August 23, 1988, achieve the pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in lead-tin-bismuth forming process wastewater introduced into a POTW shall not exceed the following values:

(a) *Rolling spent emulsions.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with emulsions	
Antimony	0.067	0.030
Lead	0.010	0.005

(b) *Rolling spent soap solutions.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with soap solutions	
Antimony	0.120	0.055
Lead	0.018	0.009

(c) *Drawing spent neat oils—Subpart A—PSES.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with emulsions	
Antimony	0.076	0.034
Lead	0.011	0.005

(e) *Drawing spent soaps solutions.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with soap olutions	
Antimony	0.022	0.010
Lead	0.003	0.002

(f) *Extrusion press and solution heat treatment contact cooling water.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth heat treated	
Antimony	0.414	0.185
Lead	0.061	0.029

(g) *Extrusion press hydraulic fluid leakage.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011

(h) *Continuous strip casting contact cooling water.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002

(i) *Semi-continuous ingot casting contact cooling water.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the semi-continuous strip method	
Antimony	0.009	0.004
Lead	0.001	0.0006

(j) *Shot casting contact cooling water.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008

(k) *Shot-forming wet air pollution control scrubber blowdown.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot formed	
Antimony	0.169	0.076
Lead	0.025	0.012

(l) *Alkaline Cleaning Spent Baths.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.345	0.154
Lead	0.051	0.024

(m) *Alkaline cleaning rinse.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.678	0.302
Lead	0.099	0.047

(n) *Swaging spent emulsions.*

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth swaged with emulsion	
Antimony	0.005	0.002
Lead	0.0008	0.0004

(o) *Degreasing spent solvents—Subpart A—PSES.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.15 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new sources 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 lead-tin-bismuth forming process wastewater introduced into a POTW shall not exceed the following values:

(a) *Rolling spent emulsions.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with emulsions	
Antimony	0.067	0.030
Lead	0.010	0.005

(b) *Rolling spent soap solutions.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with soap solutions	
Antimony	0.120	0.055
Lead	0.018	0.009

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

(d) *Drawing spent emulsions.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with emulsions	
Antimony	0.076	0.034
Lead	0.011	0.005

(e) *Drawing spent soap solutions.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with soap solutions	
Antimony	0.022	0.010
Lead	0.003	0.002

(f) *Extrusion press and solution heat treatment contact cooling water.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth heat treated	
Antimony	0.414	0.185
Lead	0.061	0.029

(g) *Extrusion press hydraulic fluid leakage.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011

(h) *Continuous strip casting contact cooling water.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002

(i) *Semi-continuous ingot casting contact cooling water.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth ingot cast by the semi-continuous method	
Antimony	0.009	0.004
Lead	0.001	0.0006

(j) *Shot casting contact cooling water.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008

(k) *Shot-forming wet air pollution control scrubber blowdown.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot formed	
Antimony	0.169	0.076
Lead	0.025	0.012

(l) *Alkaline cleaning spent baths.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.345	0.154
Lead	0.051	0.024

(m) *Alkaline cleaning rinse.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alkaline cleaned	
Antimony	0.678	0.302
Lead	0.099	0.047

(n) *Swaging spent emulsions.*

SUBPART A—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth swaged with emulsion	
Antimony	0.005	0.003
Lead	0.0008	0.0004

(o) *Degreasing spent solvents—Subpart A—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

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

Subpart B—Magnesium Forming Subcategory

§ 471.20 Applicability; description of the magnesium 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 magnesium forming subcategory.

§ 471.21 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 emulsions.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium rolled with emulsions	
Chromiun	0.033	0.014
Zinc	0.109	0.046
Ammonia	9.95	4.37
Fluoride	4.440	1.97
Oil and grease	1.49	0.895
TSS	3.06	1.46
pH		(1)

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

(b) *Forging spent lubricants—Subpart B—BPT.* There shall be no discharge of process wastewater pollutants.

(c) *Forging contact cooling water.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged magnesium cooled with water	
Chromium	1.27	0.520
Zinc	4.22	1.77
Ammonia	385	170
Fluoride	172	76.3
Oil and grease	57.8	34.7
TSS	119	56.4
pH		(1)

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

(d) *Forging equipment cleaning wastewater.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium forged	
Chromium	0.018	0.007
Zinc	0.059	0.025
Ammonia	5.32	2.34
Fluoride	2.38	1.06
Oil and grease	0.798	0.479
TSS	1.64	0.778
pH		(1)

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

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

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium cast with direct chill methods	
Chromium	1.74	0.711
Zinc	5.77	2.41
Ammonia	527	232
Fluoride	235	105
Oil and grease	79.0	47.4
TSS	162	77.1
pH		(1)

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

(f) *Surface treatment spent baths.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	0.205	0.084
Zinc	0.681	0.285
Ammonia	62.1	27.3
Fluoride	27.8	12.3
Oil and grease	9.32	5.59
TSS	19.1	9.09
pH		(1)

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

(g) *Surface treatment rinse.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	8.32	3.4
Zinc	27.6	11.5
Ammonia	2520	1110
Fluoride	1130	499
Oil and grease	378	227
TSS	775	369
pH		(1)

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

(h) *Sawing or grinding spent emulsions.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sawed or ground	
Chromium	0.009	0.004
Zinc	0.029	0.012
Ammonia	2.60	1.15
Fluoride	1.16	0.515
Oil and grease	0.390	0.234
TSS	0.800	0.381
pH		(1)

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

(i) *Degreasing spent solvents—Subpart B—BPT.* There shall be no discharge of process wastewater pollutants.

(j) *Wet air pollution control scrubber blowdown.*

SUBPART B—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sanded and repaired or forged	
Chromium	0.273	0.112
Zinc	0.904	0.378
Ammonia	82.5	36.3
Fluoride	36.9	16.4
Oil and grease	12.4	7.43
TSS	25.4	12.1
pH		(1)

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

§ 471.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent emulsions.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium rolled with emulsions	
Chromium	0.033	0.014
Zinc	0.109	0.046
Ammonia	9.95	4.37
Fluoride	4.44	1.97

(b) *Forging spent lubricants*—Subpart B—BAT. There shall be no discharge of process wastewater pollutants.

(c) *Forging contact cooling water.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged magnesium cooled with water	
Chromium	0.127	0.052
Zinc	0.422	0.177
Ammonia	38.5	17.0
Fluoride	17.2	7.63

(d) *Forging equipment cleaning wastewater.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium forged	
Chromium	0.002	0.0007
Zinc	0.006	0.003
Ammonia	0.532	0.234
Fluoride	0.238	0.106

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

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium cast with direct chill methods	
Chromium	1.74	0.711
Zinc	5.77	2.41
Ammonia	527	232
Fluoride	235	105

(f) *Surface treatment spent baths.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	0.205	0.084
Zinc	0.681	0.285
Ammonia	62.1	27.3
Fluoride	27.8	12.3

(g) *Surface treatment rinse.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	0.832	0.340
Zinc	2.76	1.16
Ammonia	252	111
Fluoride	113	49.9

(h) *Sawing or grinding spent emulsions.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sawed or ground	
Chromium	0.009	0.004
Zinc	0.029	0.012
Ammonia	2.60	1.15
Fluoride	1.16	0.515

(i) *Degreasing spent solvents—Subpart B—BAT.* There shall be no discharge of process wastewater pollutants.

(j) *Wet air pollution control scrubber blowdown.*

SUBPART B—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sanded and repaired or forged	
Chromium	0.273	0.112
Zinc	0.904	0.378
Ammonia	82.5	36.3
Fluoride	36.9	16.4

§ 471.23 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards. The mass of pollutants in the magnesium forming process wastewater shall not exceed the following values:

(a) *Rolling spent emulsions.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of magnesium rolled with emulsions	
Chromium	0.028	0.011
Zinc	0.076	0.032
Ammonia	9.95	4.37
Fluoride	4.44	1.97
Oil and grease	0.746	0.746
TSS	1.12	0.895
pH	(1)	(1)

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

(b) *Forging spent lubricants—Subpart B—NSPS.* There shall be no discharge of process wastewater pollutants.

(c) *Forging contact cooling water.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of forged magnesium cooled with water	
Chromium	0.107	0.044
Zinc	0.295	0.122
Ammonia	38.5	17.0
Fluoride	17.2	7.63
Oil and grease	2.89	2.89
TSS	4.34	3.47
pH	(1)	(1)

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

(d) *Forging equipment cleaning wastewater.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of magnesium forged	
Chromium	0.002	0.0006
Zinc	0.004	0.002
Ammonia	0.532	0.234
Fluoride	0.238	0.106
Oil and grease	0.040	0.040
TSS	0.060	0.048
pH	(1)	(1)

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

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

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium cast with direct chill methods	
Chromium	1.46	0.593
Zinc	4.03	1.66
Ammonia	527	232
Fluoride	235	105
Oil and grease	39.5	39.5
TSS	59.3	47.4
pH	(1)	(1)

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

(f) *Surface treatment spent baths.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	0.173	0.070
Zinc	0.476	0.196
Ammonia	62.1	27.3
Fluoride	27.8	12.3
Oil and grease	4.66	4.66
TSS	6.99	5.60
pH	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times

(g) *Surface treatment rinse.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pound pers million off-pounds) of magnesium surface treated	
Chromium	0.700	0.284
Zinc	1.93	0.794
Ammonia	252	111
Fluoride	113	49
Oil and grease	18.9	18.9
TSS	28.4	22.7
pH	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times

(h) *Sawing or grinding spent emulsions.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sawed or ground	
Chromium	0.007	0.003
Zinc	0.020	0.008
Ammonia	2.60	1.15
Fluoride	1.16	0.515
Oil and grease	0.195	0.195
TSS	0.293	0.234
pH	(1)	(1)

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

(i) *Degreasing spent Solvents—Subpart B—NSPS.* There shall be no discharge of process wastewater pollutants.

(j) *Wet air pollution control scrubber blowdown.*

SUBPART B—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sanded and repaired or forged	
Chromium	0.229	0.093
Zinc	0.632	0.260
Ammonia	82.5	36.3
Fluoride	36.9	16.4
Oil and grease	6.19	6.19
TSS	9.29	7.43
pH	(1)	(1)

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

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.24 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, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in magnesium forming process wastewater introduced into a POTW shall not exceed the following values:

(a) *Rolling spent emulsions.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium rolled with emulsions	
Chromium	0.033	0.014
Zinc	0.109	0.046
Ammonia	9.95	4.37
Fluoride	4.44	1.97

(b) *Forging spent lubricants—Subpart B—PSE.* There shall be no discharge of process wastewater pollutants.

(c) *Forging contact cooling water.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium cooled with water	
Chromium	0.127	0.052
Zinc	0.422	0.177
Ammonia	38.5	17.0
Fluoride	17.2	7.63

(d) *Forging equipment cleaning wastewater.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium forged	
Chromium	0.002	0.0007
Zinc	0.006	0.003
Ammonia	0.532	0.234
Fluoride	0.238	0.106

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

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium cast with direct chill methods	
Chromiun	1.74	0.711
Zinc	5.77	2.41
Ammonia	527	232
Fluoride	235	105

(f) *Surface treatment spent baths.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromiun	0.205	0.084
Zinc	0.681	0.285
Ammonia	62.1	27.3
Fluoride	27.8	12.3

(g) *Surface treatment rinse.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromiun	0.832	0.340
Zinc	2.76	1.16
Ammonia	252	111
Fluoride	113	49.9

(h) *Sawing or grinding spent emulsions.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sawed or ground	
Chromiun	0.009	0.004
Zinc	0.029	0.012
Ammonia	2.60	1.15
Fluoride	1.16	0.515

(i) *Degreasing Spent Solvents—Subpart B—PSES.* There shall be no discharge of process wastewater pollutants.

(j) *Wet air pollution control scrubber blowdown.*

SUBPART B—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sanded and repaired or forged	
Chromium	0.273	0.112
Zinc	0.904	0.378
Ammonia	8.25	36.3
Fluoride	36.9	16.4

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

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

(a) *Rolling spent emulsions.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium rolled with emulsions	
Chromium	0.028	0.011
Zinc	0.076	0.032
Ammonia	9.95	4.37
Fluoride	4.44	1.97

(b) *Forging spent lubricants—Subpart B—PSNS.* There shall be no discharge of process wastewater pollutants.

(c) *Forging contact cooling water.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged magnesium cooled with water	
Chromium	0.107	0.044
Zinc	0.295	0.122
Ammonia	38.5	17.0
Fluoride	17.2	7.63

(d) *Forging equipment cleaning wastewater.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium forged	
Chromium	0.002	0.0006
Zinc	0.004	0.002
Ammonia	0.532	0.234
Fluoride	0.238	0.106

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

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium cast with direct chill methods	
Chromium	1.46	0.593
Zinc	4.03	1.66
Ammonia	527	232
Fluoride	235	105

(f) *Surface treatment spent baths.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	0.173	0.070
Zinc	0.476	0.196
Ammonia	62.1	27.3
Fluoride	27.8	12.3

(g) *Surface treatment rinse.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium surface treated	
Chromium	0.700	0.284
Zinc	1.93	0.794
Ammonia	252	111
Fluoride	113	49.9

(h) *Sawing or grinding spent emulsions.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sawed or ground	
Chromium	0.007	0.003
Zinc	0.020	0.008
Ammonia	2.60	1.15
Fluoride	1.16	0.515

(i) *Degreasing spent solvents—Subpart B—PSNS.* There shall be no discharge of process wastewater pollutants.

(j) *Wet air pollution control scrubber blowdown.*

SUBPART B—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium sanded and repaired or forged	
Chromium	0.229	0.093
Zinc	0.632	0.260
Ammonia	82.5	36.3
Fluoride	36.9	16.4

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

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

Subpart C—Nickel-Cobalt Forming Subcategory

§ 471.30 Applicability; description of the nickel-cobalt 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 nickel-cobalt forming subcategory.

§ 471.31 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 125.30–125.32, 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—Subpart C—BPT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with emulsions	
Chromium	0.075	0.031
Nickel	0.327	0.216
Fluoride	10.1	4.49
Oil and grease	3.4	2.04
TSS	6.97	3.32
pH	(1)	(1)

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

(c) *Rolling contact cooling water.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with water	
Chromium	1.66	0.679
Nickel	7.24	4.79
Fluoride	225	99.6
Oil and grease	75.4	45.3
TSS	155	73.5
pH	(1)	(1)

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

(d) *Tube Reducing Spent Lubricant—Subpart C—BPT.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(e) *Drawing spent neat oils—Subpart C—BPT.* There shall be no discharge of process wastewater pollutants

(f) *Drawing spent emulsions.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt drawn with emulsions	
Chromium	0.042	0.017
Nickel	0.183	0.121
Fluoride	5.68	2.52
Oil and grease	1.91	1.15
TSS	3.91	1.86
pH	(1)	(1)

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

(g) *Extrusion spent lubricants—Subpart C—BPT.* There shall be no discharge of process wastewater pollutants.

(h) *Extrusion press or solution heat treatment contact cooling water.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt heat treated	
Chromium	0.037	0.015
Nickel	0.160	0.106
Fluoride	4.95	2.20
Oil and grease	1.67	0.999
TSS	3.41	1.63
pH	(1)	(1)

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

(i) *Extrusion press hydraulic fluid leakage.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt extruded	
Chromium	0.102	0.042
Nickel	0.446	0.295
Fluoride	13.8	6.13
Oil and grease	4.64	2.79
TSS	9.51	4.53
pH	(1)	(1)

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

(j) *Forging equipment cleaning wastewater.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.018	0.007
Nickel	0.077	0.051
Fluoride	2.38	1.06
Oil and grease	0.800	0.480
TSS	1.640	0.780
pH	(1)	(1)

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

(k) *Forging contact cooling water.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.209	0.086
Nickel	0.910	0.602
Flouride	28.2	12.5
Oil and grease	9.48	5.69
TSS	19.5	9.25
pH	(1)	(1)

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

(l) *Forging press hydraulic fluid leakage.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.083	0.034
Nickel	0.359	0.238
Fluoride	11.2	4.94
Oil and grease	3.74	2.25
TSS	7.67	3.65
pH	(1)	(1)

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

(m) *Forging spent lubricants—Subpart C—BPT.* There shall be no discharge of process wastewater pollutants.

(n) *Stationary casting contact cooling water.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt cast with stationary casting methods	
Chromium	5.33	2.18
Nickel	23.3	15.4
Fluoride	720	320
Oil and grease	242	145
TSS	496	236
pH	(1)	(1)

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

(o) *Vacuum melting steam condensate—Subpart C—BPT.* There shall be no allowance for the discharge of process wastewater pollutants.

(p) *Metal powder production atomization wastewater.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt metal powder atomized	
Chromium	1.16	0.472
Nickel	5.03	3.33
Fluoride	156	69.2
Oil and grease	52.4	31.5
TSS	108	51.1
pH	(1)	(1)

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

(q) *Annealing and solution heat treatment contact cooling water—Subpart C—BPT.* There shall be no allowance for the discharge of process wastewater pollutants.

(r) *Wet air pollution control scrubber blowdown.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.357	0.146
Nickel	1.56	1.03
Fluoride	48.2	21.4
Oil and grease	16.2	9.72
TSS	33.2	15.8
pH	(1)	(1)

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

(s) *Surface treatment spent baths.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.412	0.169
Nickel	1.80	1.19
Fluoride	55.7	24.7
Oil and grease	18.7	11.2
TSS	38.4	18.3
pH	(1)	(1)

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

(t) *Surface treatment rinse.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	10.4	4.25
Nickel	45.3	30.0
Fluoride	1410	623
Oil and grease	472	283
TSS	968	460
pH	(1)	(1)

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

(u) *Alkaline cleaning spent baths.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.015	1.52
Nickel	16.2	10.7
Fluoride	502	223
Oil and grease	169	101
TSS	346	165
pH	(1)	(1)

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

(v) *Alkaline cleaning rinse.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	1.03	0.420
Nickel	4.48	2.96
Fluoride	139	61.5
Oil and grease	46.6	28.0
TSS	95.6	45.5
pH	(1)	(1)

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

(w) *Molten salt rinse.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with molten salt	
Chromium	3.72	1.52
Nickel	16.2	10.7
Fluoride	502	223
Oil and grease	169	101
TSS	346	165
pH	(1)	(1)

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

(x) *Ammonia rinse.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with ammonia solution	
Chromium	0.007	0.003
Nickel	0.029	0.019
Fluoride	0.881	0.391
Oil and grease	0.296	0.178
TSS	0.607	0.289
pH		(1)

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

(y) *Sawing or grinding spent emulsions.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt sawed or ground with emulsions	
Chromium	0.018	0.007
Nickel	0.076	0.050
Fluoride	2.35	1.04
Oil and grease	0.788	0.473
TSS	1.62	0.769
pH		(1)

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

(z) *Sawing or grinding rinse.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.797	0.326
Nickel	3.48	2.30
Fluoride	108	47.8
Oil and grease	36.2	21.7
TSS	74.2	35.3
pH		(1)

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

(aa) *Steam Cleaning Condensate.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt steam cleaned	
Chromium	0.013	0.006
Nickel	0.058	0.039
Fluoride	1.79	0.795
Oil and grease	0.602	0.361
TSS	1.24	0.587
pH		(1)

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

(bb) *Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—BPT.* There shall be no allowance for the discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents—Subpart C—BPT.* There shall be no discharge of process wastewater pollutants.

(dd) *Dye penetrant testing wastewater.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt tested with dye penetrant method	
Chromium	0.094	0.039
Nickel	0.409	0.271
Fluoride	12.7	5.63
Oil and grease	4.26	2.56
TSS	8.74	4.16
pH	(1)	(1)

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

(ee) *Electrocoating rinse.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt electrocoated	
Chromium	1.48	0.607
Nickel	6.47	4.28
Fluoride	201	89.0
Oil and grease	67.4	40.5
TSS	138	65.7
pH	(1)	(1)

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

(ff) *Miscellaneous wastewater sources.*

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.108	0.044
Nickel	0.473	0.313
Fluoride	14.7	6.50
Oil and grease	4.92	2.95
TSS	10.1	4.80
pH	(1)	(1)

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

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986, as amended at 54 FR 11348, Mar. 17, 1989]

§ 471.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent neat oils—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with emulsions	
Chromium	0.063	0.026
Nickel	0.094	0.063
Fluoride	10.1	4.49

(c) *Rolling contact cooling water.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with water	
Chromium	0.028	0.011
Nickel	0.042	0.028
Fluoride	4.49	1.99

(d) *Tube Reducing Spent Lubricant—Subpart C—BAT.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required

under subparagraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(e) *Drawing spent neat oils—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.

(f) *Drawing spent emulsions.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt drawn with emulsions	
Chromium	0.036	0.015
Nickel	0.053	0.036
Fluoride	5.68	2.52

(g) *Extrusion spent lubricants—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.

(h) *Extrusion press or solution heat treatment contact cooling water.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded nickel-cobalt heat treated	
Chromium	0.031	0.013
Nickel	0.046	0.031
Fluoride	4.95	2.20

(i) *Extrusion press hydraulic fluid leakage.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt extruded	
Chromium	0.086	0.034
Nickel	0.128	0.086
Fluoride	13.8	6.13

(j) *Forging equipment cleaning wastewater.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.002	0.0006
Nickel	0.002	0.002
Fluoride	0.238	0.106

(k) *Forging contact cooling water.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018	0.007
Nickel	0.026	0.018
Fluoride	2.82	1.25

(l) *Forging press hydraulic fluid leakage.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.069	0.028
Nickel	.103	0.069
Fluoride	11.2	4.94

(m) *Forging spent lubricants—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.

(n) *Stationary casting contact cooling water.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt cast with stationary casting methods	
Chromium	0.448	0.182
Nickel	.666	.448
Fluoride	72.0	32.0

(o) *Vacuum melting steam condensate—Subpart C—BAT.* There shall be no allowance for the discharge of wastewater pollutants.

(p) *Metal powder production atomization wastewater.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt metal powder atomized	
Chromium	0.970	0.393
Nickel	1.44	.970
Fluoride	156	69.2

(q) *Annealing and solution heat treatment contact cooling water—Subpart C—BAT.* There shall be no allowance for the discharge of wastewater pollutants.

(r) *Wet air pollution control scrubber blowdown.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.300	0.122
Nickel	.446	.300
Fluoride	48.2	21.4

(s) *Surface treatment spent baths.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.346	0.141
Nickel	.514	.346
Fluoride	55.7	24.7

(t) *Surface treatment rinse.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.873	0.354
Nickel	1.30	.873
Fluoride	141	62.3

(u) *Alkaline cleaning spent baths.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.013	0.005
Nickel	0.019	0.013
Fluoride	2.02	0.895

(v) *Alkaline cleaning rinse.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.086	0.035
Nickel	0.128	0.086
Fluoride	13.9	6.15

(w) *Molten salt rinse.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly averge
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with molten salt	
Chromium	0.312	0.127
Nickel	0.464	0.312
Fluoride	50.2	22.3

(x) *Ammonia rinse.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with ammonia solution	
Chromium	0.006	0.002
Nickel	0.008	0.006
Fluoride	0.881	0.391

(y) *Sawing or grinding spent emulsions.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt sawed or ground with emulsions	
Chromium	0.015	0.006
Nickel	0.022	0.015
Fluoride	2.35	1.04

(z) *Sawing or grinding rinse.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.067	0.027
Nickel	0.100	0.067
Fluoride	10.8	4.78

(aa) *Steam cleaning condensate.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt steam cleaned	
Chromium	0.011	0.005
Nickel	0.017	0.011
Fluoride	1.79	0.795

(bb) *Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—BAT.* There shall be no allowance for the discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.

(dd) *Dye penetrant testing wastewater.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt tested with dye penetrant method	
Chromium	0.079	0.032
Nickel	0.117	0.079
Fluoride	12.7	5.63

(ee) *Electrocoating rinse.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt electrocoated	
Chromium	1.25	0.506
Nickel	1.86	1.25
Fluoride	201	89.0

(ff) *Miscellaneous wastewater sources.*

SUBPART C—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.091	0.037
Nickel	0.136	0.091
Fluoride	14.7	6.50

[50 FR 34270, Aug. 23, 1985; 51 FR 2885, Jan. 22, 1986, as amended at 54 FR 11348, Mar. 17, 1989; 54 FR 13606, Apr. 4, 1989]

§ 471.33 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutants in the nickel-cobalt forming process wastewater shall not exceed the following values:

(a) *Rolling spent neat oils—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with emulsions	
Chromium	0.063	0.026
Nickel	0.094	0.063
Fluoride	10.1	4.49
Oil and grease	1.70	1.70
TSS	2.55	2.04
pH	(1)	(1)

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

(c) *Rolling contact cooling water.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with water	
Chromium	0.028	0.012
Nickel	0.042	0.028
Fluoride	4.49	1.99
Oil and grease	0.754	0.754
TSS	1.13	0.905
pH	(1)	(1)

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

(d) *Tube Reducing Spent Lubricant—Subpart C—NSPS.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (d)(2) of

this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(e) *Drawing spent neat oils—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.

(f) *Drawing spent emulsions.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt drawn with emulsions	
Chromium	0.036	0.015
Nickel	0.053	0.036
Fluoride	5.68	2.52
Oil and grease	0.954	0.954
TSS	1.43	1.15
pH	(1)	(1)

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

(g) *Extrusion spent lubricants—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.

(h) *Extrusion press or solution heat treatment contact cooling water.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded nickel-cobalt heat treated	
Chromium	0.031	0.013
Nickel	0.046	0.031
Fluoride	4.95	2.20
Oil and grease	0.832	0.832
TSS	1.25	0.999
pH	(1)	(1)

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

(i) *Extrusion press hydraulic fluid leakage.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt extruded	
Chromium	0.086	0.035
Nickel	0.128	0.086
Fluoride	13.8	6.13
Oil and grease	2.32	2.32
TSS	3.48	2.79
pH	(1)	(1)

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

(j) *Forging equipment cleaning wastewater.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.002	0.00006
Nickel	0.002	0.002
Fluoride	0.238	0.106
Oil and grease	0.040	0.040
TSS	0.060	0.048
pH	(1)	(1)

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

(k) *Forging contact cooling water.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018	0.007
Nickel	0.026	0.018
Fluoride	2.82	1.25
Oil and grease	0.474	0.474
TSS	0.711	0.569
pH	(1)	(1)

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

(l) *Forging press hydraulic fluid leakage.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.069	0.028
Nickel	0.103	0.069
Fluoride	11.2	4.94
Oil and grease	1.87	1.87
TSS	2.81	2.25
pH	(1)	(1)

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

(m) *Forging spent lubricants—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.

(n) *Stationary casting contact cooling water.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt cast with stationary casting methods	
Chromium	0.448	0.182
Nickel	0.666	0.448
Fluoride	72.0	32.0
Oil and grease	12.1	12.1
TSS	18.2	14.5
pH	(1)	(1)

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

(o) *Vacuum melting steam condensate—Subpart C—NSPS.* There shall be no allowance for the discharge of process wastewater pollutants.

(p) *Metal powder production atomization wastewater.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt metal powder atomized	
Chromium	0.970	0.393
Nickel	1.44	0.970
Fluoride	156	69.2
Oil and grease	26.2	26.2
TSS	39.3	31.5
pH	(1)	(1)

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

(q) *Annealing and solution heat treatment contact cooling water—Subpart C—NSPS.* There shall be no allowance for the discharge of process wastewater pollutants.

(r) *Wet air pollution control scrubber blowdown.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.300	0.122
Nickel	0.450	0.300
Fluoride	48.2	21.4
Oil and grease	8.1	8.1
TSS	12.2	9.72
pH	(1)	(1)

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

(s) *Surface treatment spent baths.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.346	0.141
Nickel	0.515	0.346
Fluoride	55.7	24.7
Oil and grease	9.35	9.35
TSS	14.1	11.2
pH	(1)	(1)

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

(t) *Surface treatment rinse.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.874	0.354
Nickel	1.30	0.873
Fluoride	141	62.3
Oil and grease	23.6	23.6
TSS	35.4	28.3
pH	(1)	(1)

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

(u) *Alkaline cleaning spent baths.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.013	0.005
Nickel	0.019	0.013
Fluoride	2.02	0.895
Oil and grease	0.339	0.339
TSS	0.509	0.407
pH	(1)	(1)

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

(v) *Alkaline cleaning rinse.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.086	0.035
Nickel	.128	.086
Fluoride	13.9	6.15
Oil and grease	2.33	2.33
TSS	3.50	2.80
pH	(1)	(1)

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

(w) *Molten salt rinse.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with molten salt	
Chromium	0.312	0.127
Nickel	0.464	0.312
Fluoride	50.2	22.3
Oil and grease	8.44	8.44
TSS	12.7	10.1
pH	(1)	(1)

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

(x) *Ammonia rinse.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with ammonia solution	
Chromium	0.006	0.002
Nickel	.008	.006
Fluoride	.881	.391
Oil and grease	.148	.148
TSS	222	178
pH	(1)	(1)

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

(y) *Sawing or grinding spent emulsions.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt sawed or ground	
Chromium	0.015	0.006
Nickel	.002	.015
Fluoride	2.35	1.04
Oil and grease	.394	.394
TSS	591	473
pH	(1)	(1)

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

(z) *Sawing or grinding rinse.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.067	0.027
Nickel	0.100	0.067
Fluoride	10.8	4.78
Oil and grease	1.81	1.81
TSS	2.72	217
pH	(1)	(1)

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

(aa) *Steam cleaning condensate.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt steam cleaned	
Chromium	0.011	0.005
Nickel	0.017	0.011
Fluoride	1.79	0.795
Oil and grease	0.301	0.301
TSS	0.452	0.361
pH	(1)	(1)

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

(bb) *Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents.—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.

(dd) *Dye penetrant testing wastewater.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt tested with dye penetrant method	
Chromium	0.079	0.032
Nickel	0.117	0.079
Fluoride	12.7	5.63
Oil and grease	2.13	2.13
TSS	3.20	2.56
pH	(1)	(1)

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

(ee) *Electrocoating rinse.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt electrocoated	
Chromium	1.25	0.506
Nickel	1.86	1.25
Fluoride	201	89.0
Oil and grease	33.7	33.7
TSS	50.6	40.5
pH	(1)	(1)

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

(ff) *Miscellaneous wastewater sources.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.091	0.037
Nickel	0.136	0.091
Fluoride	14.7	6.50
Oil and grease	2.46	2.46
TSS	3.69	2.95
pH	(1)	(1)

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

[50 FR 34270, Aug. 23, 1985; 51 FR 2885, Jan. 22, 1986, as amended at 54 FR 11349, Mar. 17, 1989; 54 FR 13606, Apr. 4, 1989]

§ 471.34 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, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in nickel-cobalt forming wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Rolling spent emulsions.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with emulsions	
Chromium	0.063	0.026
Nickel	0.094	0.063
Fluoride	10.1	4.49

(c) *Rolling contact cooling water.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with water	
Chromium	0.028	0.011
Nickel	0.042	0.028
Fluoride	4.49	1.99

(d) *Tube Reducing Spent Lubricant—Subpart C—PSES.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(e) *Drawing spent neat oils—Subpart C—PSES.* There shall be no discharge of process wastewater pollutants.

(f) *Drawing spent emulsions.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt drawn with emulsions	
Chromium	0.036	0.014
Nickel	0.053	0.036
Fluoride	5.68	2.52

(g) *Extrusion spent lubricants—Subpart C—PSES.* There shall be no discharge of process wastewater pollutants.

(h) *Extrusion press or solution heat treatment contact cooling water.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded nickel-cobalt heat treated	
Chromium	0.031	0.013
Nickel	0.046	0.031
Fluoride	4.95	2.20

(i) *Extrusion press hydraulic fluid leakage.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt extruded	
Chromium	0.086	0.034
Nickel	0.128	0.086
Fluoride	13.8	6.13

(j) *Forging equipment cleaning wastewater.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.002	0.0006
Nickel	0.002	0.002
Fluoride	0.238	0.106

(k) *Forging contact cooling water.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018	0.007
Nickel	0.026	0.018
Fluoride	2.82	1.25

(l) *Forging press hydraulic fluid leakage.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.069	0.028
Nickel	0.103	0.069
Fluoride	11.2	4.94

(m) *Forging spent lubricants—Subpart C—PSES.* There shall be no discharge of process wastewater pollutants.

(n) *Stationary casting contact cooling water.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt cast with stationary methods	
Chromium	0.448	0.182
Nickel	0.666	0.448
Fluoride	72.0	32.0

(o) *Vacuum melting steam condensate—Subpart C—PSES.* There shall be no allowance for the discharge of wastewater pollutants.

(p) *Metal powder production atomization wastewater.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt metal powder atomized	
Chromium	0.970	0.393
Nickel	1.44	0.970
Fluoride	156	69.2

(q) *Annealing and solution heat treatment contact cooling water—Subpart C—PSES.* There shall be no allowance for the discharge of wastewater pollutants.

(r) *Wet air pollution control scrubber blowdown.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.300	0.122
Nickel	0.446	0.300
Fluoride	48.2	21.4

(s) *Surface treatment spent baths.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.346	0.141
Nickel	0.514	0.346
Fluoride	55.7	24.7

(t) *Surface treatment rinse.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.873	0.354
Nickel	1.30	0.873
Fluoride	141	62.3

(u) *Alkaline cleaning spent baths.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.013	0.005
Nickel	0.019	0.013
Fluoride	2.02	0.895

(v) *Alkaline cleaning rinse.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.086	0.035
Nickel	0.128	0.086
Fluoride	13.9	6.15

(w) *Molten salt rinse.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with molten salt	
Chromium	0.312	0.127
Nickel	0.464	0.312
Fluoride	50.2	22.3

(x) *Ammonia rinse.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with ammonia solution	
Chromium	0.006	0.002
Nickel	0.008	0.006
Fluoride	0.881	0.391

(y) *Sawing or grinding spent emulsions.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt sawed or ground with emulsions	
Chromium	0.015	0.006
Nickel	0.022	0.015
Fluoride	2.35	1.04

(z) *Sawing or grinding rinse.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.067	0.027
Nickel	0.100	0.067
Fluoride	10.8	4.78

(aa) *Steam cleaning condensate.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt steam cleaned	
Chromium	0.011	0.005
Nickel	0.017	0.011
Fluoride	1.79	0.795

(bb) *Hydrostatic Tube Testing and Ultrasonic Testing Wastewater—Subpart C—PSES.* There shall be no allowance for the discharge of process wastewater pollutants.

(cc) *Degreasing Spent Solvents—Subpart C—PSES.* There shall be no discharge of process wastewater pollutants.

(dd) *Dye Penetrant Testing Wastewater.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt tested with dye penetrant method	
Chromium	0.079	0.032
Nickel	0.117	0.079
Fluoride	12.7	5.63

(ee) *Electrocoating rinse.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt electrocoated	
Chromium	1.25	0.506
Nickel	1.86	1.25
Fluoride	201	89.0

(ff) *Miscellaneous wastewater sources.*

SUBPART C—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.091	0.037
Nickel	0.136	0.091
Fluoride	14.7	6.50

[50 FR 34270, Aug. 23, 1985; 51 FR 2885, Jan. 22, 1986, as amended at 54 FR 11349, Mar. 17, 1989; 54 FR 13606, Apr. 4, 1989]

§ 471.35 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 standards for new sources. The mass of wastewater pollutants in nickel-cobalt forming process wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Rolling spent emulsions.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with emulsions	
Chromium	0.063	0.026
Nickel	0.094	0.063
Fluoride	10.1	4.49

(c) *Rolling contact cooling water.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt rolled with water	
Chromium	0.028	0.012
Nickel	0.042	0.028
Fluoride	4.49	1.99

(d) *Tube Reducing Spent Lubricant—Subpart C—PSNS.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under subparagraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section (2); or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in subparagraph (2) above and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(e) *Drawing spent neat oils—Subpart C—PSNS.* There shall be no discharge of process wastewater pollutants.

(f) *Drawing spent emulsions.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt drawn with emulsions	
Chromium	0.036	0.015
Nickel	0.053	0.036
Fluoride	5.68	2.52

(g) *Extrusion spent lubricants—Subpart C—PSNS.* There shall be no discharge of process wastewater pollutants.

(h) *Extrusion press or solution heat treatment contact cooling water.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded nickel-cobalt heat treated	
Chromium	0.031	0.013
Nickel	0.046	0.031
Fluoride	4.95	2.20

(i) *Extrusion press hydraulic fluid leakage.*

SUBPART C—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt extruded	
Chromium	0.086	0.034
Nickel	0.128	0.086
Fluoride	13.8	6.13

(j) *Forging equipment cleaning wastewater.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.002	0.0006
Nickel	0.002	0.002
Fluoride	0.238	0.106

(k) *Forging contact cooling water.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018	0.007
Nickel	0.026	0.018
Fluoride	2.82	1.25

(l) *Forging press hydraulic fluid leakage.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium	0.069	0.028
Nickel	0.103	0.069
Fluoride	11.2	4.94

(m) *Forging spent lubricants—Subpart C—PSNS.* There shall be no discharge of process wastewater pollutants.

(n) *Stationary casting contact cooling water.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt cast with stationary methods	
Chromium	0.448	0.182
Nickel	0.666	0.448
Fluoride	72.0	32.0

(o) *Vacuum melting steam condensate—Subpart C—PSNS.* There shall be no allowance for the discharge of process wastewater pollutants.

(p) *Metal powder production atomization wastewater.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt metal powder atomized	
Chromium	0.970	0.393
Nickel	1.44	0.970
Fluoride	156	69.2

(q) *Annealing and Solution Heat Treatment Contact Cooling Water—Subpart C—PSNS.* There shall be no allowance for the discharge of process wastewater pollutant.

(r) *Wet Air Pollution Control Scrubber Blowdown.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.300	0.122
Nickel	0.450	0.300
Fluoride	48.2	21.4

(s) *Surface treatment spent baths.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.346	0.141
Nickel	0.515	0.346
Fluoride	55.7	24.7

(t) *Surface treatment rinse.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt surface treated	
Chromium	0.874	0.354
Nickel	1.30	0.873
Fluoride	141	62.3

(u) *Alkaline cleaning spent baths.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.013	0.005
Nickel	0.019	0.013
Fluoride	2.02	0.895

(v) *Alkaline cleaning rinse.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.086	0.035
Nickel	0.128	0.086
Fluoride	13.9	6.15

(w) *Molten salt rinse.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with molten salt	
Chromium	0.312	0.127
Nickel	0.464	0.312
Fluoride	50.2	22.3

(x) *Ammonia rinse.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt treated with ammonia solution	
Chromium	0.006	0.002
Nickel	0.008	0.006
Fluoride	0.881	0.391

(y) *Sawing or grinding spent emulsions.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt sawed or ground with emulsions	
Chromium	0.015	0.006
Nickel	0.022	0.015
Fluoride	2.35	1.04

(z) *Sawing or grinding rinse.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.067	0.027
Nickel	0.100	0.067
Fluoride	10.8	4.78

(aa) *Steam cleaning condensate.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt steam cleaned	
Chromium	0.011	0.005
Nickel	0.017	0.011
Fluoride	1.79	0.795

(bb) *Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—PSNS.* There shall be no allowance discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents—Subpart C—PSNS.* There shall be no discharge of process wastewater pollutants.

(dd) *Dye penetrant testing wastewater.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt tested with dye penetrant method	
Chromium	0.079	0.032
Nickel	0.117	0.079
Fluoride	12.7	5.63

(ee) *Electrocoating rinse.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt electrocoated	
Chromium	1.25	0.506
Nickel	1.86	0.125
Fluoride	201	89.0

(ff) *Miscellaneous wastewater sources.*

SUBPART C—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt formed	
Chromium	0.091	0.037
Nickel	0.136	0.091
Fluoride	14.7	6.50

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986, as amended at 54 FR 11350, Mar. 17, 1989]

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

Subpart D—Precious Metals Forming Subcategory

§ 471.40 Applicability; description of the precious 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 precious metals forming subcategory.

§ 471.41 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—Subpart D—BPT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART D—BPT

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	
Chromium	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	(1)	(1)

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

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

(d) *Drawing spent emulsions.*

SUBPART D—BPT

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
Oil and grease	0.950	0.570
TSS	1.95	0.926
pH	(1)	(1)

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

(e) *Drawing spent soap solutions.*

SUBPART D—BPT

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	0.001	0.0006
Oil and grease	0.063	0.038
TSS	0.128	0.061
pH	(1)	(1)

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

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

SUBPART D—BPT

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	6.70
Cyanide	1.94	0.802
Silver	2.70	1.14
Oil and grease	134	80.2
TSS	274	130
pH	(1)	(1)

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

(g) *Heat treatment contact cooling water.*

SUBPART D—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded precious metals heat treated	
Cadmium	1.42	0.626
Copper	7.93	4.17
Cyanide	1.21	0.501
Silver	1.71	0.709
Oil and grease	83.4	50.1
TSS	171	81.3
pH	(1)	(1)

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

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

SUBPART D—BPT

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	3.50	1.55
Copper	19.6	10.3
Cyanide	2.99	1.24
Silver	4.23	1.75
Oil and grease	206	124
TSS	423	209
pH	(1)	(1)

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

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

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

SUBPART D—BPT

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	3.67	1.62
Copper	20.5	10.8
Cyanide	3.13	1.30
Silver	4.43	1.84
Oil and grease	216	130
TSS	443	211
pH	(1)	(1)

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

(k) *Shot casting contact cooling water.*

SUBPART D—BPT

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	1.25	0.551
Copper	6.98	3.67
Cyanide	1.07	0.441
Silver	1.51	0.624
Oil and grease	73.4	44.1
TSS	151	71.6
pH	(1)	(1)

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

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

(m) *Pressure bonding contact cooling water.*

SUBPART D—BPT

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	(1)	(1)

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

(n) *Surface treatment spent baths.*

SUBPART D—BPT

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	(1)	(1)

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

(o) *Surface treatment rinse.*

SUBPART D—BPT

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	2.10	0.924
Copper	11.7	5.16
Cyanide	1.79	0.739
Silver	2.53	1.05
Oil and grease	123	73.9
TSS	253	120
pH	(1)	(1)

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

(p) *Alkaline cleaning spent baths.*

SUBPART D—BPT

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	1.170
pH	(1)	(1)

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

(q) *Alkaline cleaning rinse.*

SUBPART D—BPT

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	3.81	1.68
Copper	21.3	11.2
Cyanide	3.25	1.35
Silver	4.59	1.91
Oil and grease	224	135
TSS	459	219
pH	(1)	(1)

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

(r) *Alkaline cleaning prebonding wastewater.*

SUBPART D—BPT

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	3.95	1.74
Copper	22.1	11.6
Cyanide	3.37	1.39
Silver	4.76	1.97
Oil and grease	232	139
TSS	476	226
pH	(1)	(1)

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

(s) *Tumbling or burnishing wastewater.*

SUBPART D—BPT

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	4.12	1.82
Copper	23.0	12.1
Cyanide	3.51	1.45
Silver	4.96	2.06
Oil and grease	242	145
TSS	496	236
pH	(1)	(1)

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

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

(u) *Sawing or grinding spent emulsions.*

SUBPART D—BPT

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	0.039	0.016
Oil and grease	1.87	1.12
TSS	3.83	1.82
pH	(1)	(1)

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

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

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

§ 471.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent neat oils—Subpart D—BAT.* There shall be no discharge of wastewater pollutants.

(b) *Rolling spent emulsions.*

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 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—BAT.* There shall be no discharge of process wastewater pollutants.

(d) *Drawing spent emulsions.*

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 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—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 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.*

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 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—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 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—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 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—BAT.* There shall be no discharge of process wastewater pollutants.

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

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 cast by the direct chill method	
Cadmium	0.3676	0.162
Copper	2.05	1.08
Cyanide	0.313	0.130
Silver	0.443	0.184

(k) *Shot casting contact cooling water.*

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 shot cast	
Cadmium	0.125	0.055
Copper	0.698	0.367
Cyanide	0.107	0.044
Silver	0.151	0.063

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

(m) *Pressure bonding contact cooling water.*

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 metal and base metal pressure bonded	
Cadmium	0.0297	0.013
Copper	0.159	0.084
Cyanide	0.0247	0.010
Silver	0.0342	0.014

(n) *Surface treatment spent baths.*

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 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—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 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—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 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—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 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—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metal 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—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 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—BAT.* There shall be no discharge of process wastewater pollutants.

(u) *Sawing or grinding spent emulsions.*

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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

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

(g) *Heat treatment 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 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

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

(o) *Surface treatment 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 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

[1] 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	(1)	(1)

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

(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.*

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

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

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

SUBPART D—PSES

Pollutant or pollutant property	Maximum for any one 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.*

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 shot cast	
Cadmium	0.125	0.055
Copper	0.698	0.367
Cyanide	0.107	0.044
Silver	0.151	0.063

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

(m) *Pressure bonding 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 metal 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—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 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.*

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 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—PSNS

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.*

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 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.*

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 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

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—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 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—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 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—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 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
	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.*

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 burnished	
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 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]

§ 471.46 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.

(f) *Forging spent lubricants—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(g) *Forging contact cooling water.*

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 forged refractory metals cooled with water	
Copper	0.614	0.323
Nickel	0.620	0.410
Fluoride	19.2	8.53
Molybdenum	2.14	1.11
Oil and grease	6.46	3.88
TSS	13.3	6.30
pH	(1)	(1)

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

(h) *Equipment cleaning wastewater.*

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 formed	
Copper	2.59	1.36
Nickel	2.61	1.73
Fluoride	80.9	35.9
Molybdenum	8.99	4.65
Oil and grease	27.2	16.3
TSS	55.8	26.5
pH	(1)	(1)

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

(i) *Metal powder production wastewater.*

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 powder produced	
Copper	0.534	0.281
Nickel	0.540	0.357
Fluoride	16.70	7.42
Molybdenum	1.86	0.961
Oil and grease	5.62	3.37
TSS	11.5	5.48
pH	(1)	(1)

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

(j) *Metal powder production floor wash wastewater—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(k) *Metal powder pressing spent lubricants—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(l) *Surface treatment spent baths.*

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 surface treated	
Copper	0.739	0.389
Nickel	0.747	0.494
Fluoride	23.2	10.3
Molybdenum	2.57	1.33
Oil and grease	7.78	4.68
TSS	16.0	7.59
pH	(1)	(1)

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

(m) *Surface treatment rinse.*

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 surface treated	
Copper	230	121
Nickel	232	154
Fluoride	7,200	3,200
Molybdenum	800	414
Oil and grease	2,420	1,450
TSS	4,960	2,360
pH	(1)	(1)

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

(n) *Alkaline cleaning spent baths.*

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 alkaline cleaned	
Copper	0.635	0.334
Nickel	0.641	0.424
Fluoride	19.9	8.82
Molybdenum	2.21	1.14
Oil and grease	6.68	4.01
TSS	13.7	6.51
pH	(1)	(1)

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

(o) *Alkaline cleaning rinse.*

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 alkaline cleaned	
Copper	1,550	816
Nickel	1,570	1,040
Fluoride	48,600	21,600
Molybdenum	5,400	2,790
Oil and grease	16,300	9,790
TSS	33,500	15,900
pH	(1)	(1)

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

(p) *Molten salt rinse.*

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 treated with molten salt	
Copper	12.1	6.33
Nickel	12.2	8.04
Fluoride	377	167
Molybdenum	41.9	21.7
Oil and grease	127	76.0
TSS	260	124
pH	(1)	(1)

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

(q) *Tumbling or burnishing wastewater.*

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 tumbled or burnished	
Copper	23.8	12.5
Nickel	24.0	15.9
Fluoride	744	330
Molybdenum	82.7	42.8
Oil and grease	250	150
TSS	513	244
pH	(1)	(1)

Within the range of 7.5 to 10.0 at all times.

(r) *Sawing or grinding spent neat oils—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

(s) *Sawing or grinding 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 sawed or ground with emulsions	
Copper	0.565	0.297
Nickel	0.570	0.377
Fluoride	17.7	7.84
Molybdenum	1.97	1.02
Oil and grease	5.94	3.57
TSS	12.2	5.79
pH	(1)	(1)

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

(t) *Sawing or grinding contact cooling water.*

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 sawed or ground with contact cooling water	
Copper	46.2	24.3
Nickel	46.7	30.9
Fluoride	1450	642
Molybdenum	161	83.1
Oil and grease	486	292
TSS	997	474
pH	(1)	(1)

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

(u) *Sawing or grinding rinse.*

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 sawed or ground refractory metals rinsed	
Copper	0.257	0.135
Nickel	0.259	0.172
Fluoride	8.03	3.57
Molybdenum	0.893	0.462
Oil and grease	2.70	1.62
TSS	5.54	2.63
pH	(1)	(1)

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

(v) *Wet air pollution control scrubber blowdown.*

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 sawed or ground, surface coated or surface treated	
Copper	1.50	0.787
Nickel	1.51	1.00
Fluoride	46.8	20.8
Molybdenum	5.20	2.69
Oil and grease	15.8	9.45
TSS	32.3	15.4
pH	(1)	(1)

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

(w) *Miscellaneous wastewater sources.*

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 formed	
Copper	0.656	0.345
Nickel	0.663	0.438
Fluoride	20.6	9.11
Molybdenum	2.28	1.18
Oil and grease	6.9	4.14
TSS	14.2	6.73
pH	(1)	(1)

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

(x) *Dye penetrant testing wastewater.*

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 tested	
Copper	0.150	0.078
Nickel	0.150	0.099
Fluoride	4.60	2.00
Molybdenum	0.513	0.266
Oil and grease	1.60	0.930
TSS	3.20	1.50
pH	(1)	(1)

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

(y) *Degreasing spent solvents—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

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

§ 471.52 Effluent limitations representating the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

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

(b) *Rolling spent emulsions.*

SUBPART E–BAT

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	0.549	0.262
Nickel	0.236	0.157
Fluoride	25.5	11.3
Molybdenum	2.16	0.957

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

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

(e) *Extrusion press hydraulic fluid leakage.*

SUBPART E—BAT

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	1.5	0.730
Nickel	0.650	0.440
Fluoride	71.000	31.0
Molybdenum	5.99	2.66

(f) *Forging spent lubricants—Subpart E—BAT.* There shall be no discharge of process wastewater pollutants.

(g) *Forging contact cooling water.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged refractory metals cooled with water	
Copper	0.041	0.020
Nickel	0.018	0.012
Fluoride	1.92	0.853
Molybdenum	0.163	0.072

(h) *Equipment cleaning wastewater.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.174	0.083
Nickel	0.075	0.051
Fluoride	8.09	3.59
Molybdenum	0.684	0.303

(i) *Metal powder production wastewater.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals powder produced	
Copper	0.360	0.172
Nickel	0.155	0.104
Fluoride	16.7	7.42
Molybdenum	1.42	0.627

(j) *Metal powder production floor wash wastewater—Subpart E—BAT.* There shall be no discharge of process wastewater pollutants.

(k) *Metal powder pressing spent lubricants—Subpart E—BAT.* There shall be no discharge of process wastewater pollutants.

(l) *Surface treatment spent baths.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	0.498	0.237
Nickel	0.214	0.144
Fluoride	23.2	10.3
Molybdenum	1.96	0.868

(m) *Surface treatment rinse.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	15.5	7.38
Nickel	6.66	4.48
Fluoride	720	320
Molybdenum	60.9	27.0

(n) *Alkaline cleaning spent baths.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	0.428	0.204
Nickel	0.184	0.124
Fluoride	19.9	8.82
Molybdenum	1.68	0.745

(o) *Alkaline cleaning rinse.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	10.5	4.98
Nickel	4.49	3.02
Fluoride	486	216
Molybdenum	41.1	18.2

(p) *Molten salt rinse.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals treated with molten salt	
Copper	0.810	0.386
Nickel	0.348	0.234
Fluoride	37.7	16.7
Molybdenum	3.19	1.41

(q) *Tumbling or burnishing wastewater.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals tumbled or burnished	
Copper	1.60	0.763
Nickel	0.688	0.463
Fluoride	74.4	33.0
Molybdenum	6.29	2.79

(r) *Sawing or grinding spent neat oils—Subpart E—BAT.* There shall be no discharge of process wastewater pollutants.

(s) *Sawing or grinding spent emulsions.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with emulsions	
Copper	0.380	0.181
Nickel	0.164	0.110
Fluoride	17.7	7.84
Molybdenum	1.50	0.663

(t) *Sawing or grinding contact cooling water.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with contact cooling water	
Copper	3.11	1.48
Nickel	1.34	0.899
Fluoride	145.0	64.2
Molybdenum	12.2	5.42

(u) *Sawing or grinding rinse.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground refractory metals rinsed	
Copper	0.018	0.009
Nickel	0.008	0.005
Fluoride	0.803	0.357
Molybdenum	0.068	0.030

(v) *Wet air pollution control scrubber blowdown.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed, surface coated or surface treated	
Copper	1.01	0.480
Nickel	0.433	0.291
Fluoride	46.8	20.8
Molybdenum	3.96	1.76

(w) *Miscellaneous wastewater sources.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.442	0.211
Nickel	0.190	0.128
Fluoride	20.6	9.11
Molybdenum	1.74	0.770

(x) *Dye penetrant testing wastewater.*

SUBPART E—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals product tested	
Copper	0.100	0.048
Nickel	0.043	0.029
Fluoride	4.62	2.05
Molybdenum	0.391	0.173

(y) *Degreasing spent solvents—Subpart E—BAT.* There shall be no discharge of process wastewater pollutants.

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

§ 471.53 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 and graphite based lubricants—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART E—NSPS

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	0.549	0.262
Nickel	0.236	0.159
Fluoride	25.5	11.3
Molybdenum	2.16	0.957
Oil and grease	4.29	4.29
TSS	6.44	5.15
pH	(1)	(1)

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

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

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

(e) *Extrusion press hydraulic fluid leakage.*

SUBPART E—NSPS

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	1.53	0.726
Nickel	0.655	0.441
Fluoride	70.8	31.4
Molybdenum	5.99	2.66
Oil and grease	11.9	11.9
TSS	17.9	14.3
pH	(1)	(1)

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

(f) *Forging spent lubricants—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.

(g) *Forging contact cooling water.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged refractory metals cooled with water	
Copper	0.041	0.020
Nickel	0.018	0.012
Fluoride	1.92	0.853
Molybdenum	0.163	0.072
Oil and grease	0.323	0.323
TSS	0.485	0.388
pH	(1)	(1)

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

(h) *Equipment cleaning wastewater.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.174	0.083
Nickel	0.075	0.051
Fluoride	8.09	3.59
Molybdenum	0.684	0.303
Oil and grease	1.36	1.36
TSS	2.04	1.63
pH	(1)	(1)

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

(i) *Metal powder production wastewater.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals powder produced	
Copper	0.360	0.172
Nickel	0.155	0.104
Fluoride	16.7	7.42
Molybdenum	1.42	0.627
Oil and grease	2.81	2.81
TSS	4.22	3.37
pH	(1)	(1)

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

(j) *Metal powder production floor wash wastewater—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.

(k) *Metal powder pressing spent lubricants—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.

(l) *Surface treatment spent baths.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	0.498	0.237
Nickel	0.214	0.144
Fluoride	23.2	10.3
Molybdenum	1.96	0.868
Oil and grease	3.89	3.89
TSS	5.84	4.67
pH	(1)	(1)

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

(m) *Surface treatment rinse.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	15.5	7.38
Nickel	6.66	4.48
Fluoride	720	320
Molybdenum	69.9	27.0
Oil and grease	121	121
TSS	182	145
pH	(1)	(1)

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

(n) *Alkaline cleaning spent baths.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	0.428	0.204
Nickel	.184	0.124
Fluoride	19.9	8.82
Molybdenum	1.68	0.745
Oil and grease	3.34	3.34
TSS	5.01	4.01
pH	(1)	(1)

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

(o) *Alkaline cleaning rinse.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	10.5	4.98
Nickel	4.49	3.02
Fluoride	486	216
Molybdenum	41.1	18.2
Oil and grease	81.6	81.6
TSS	123	97.9
pH	(1)	(1)

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

(p) *Molten salt rinse.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals treated with molten salt	
Copper	0.810	0.386
Nickel	0.348	0.234
Fluoride	37.7	16.7
Molybdenum	3.19	1.41
Oil and grease	6.33	6.33
TSS	9.5	7.6
pH	(1)	(1)

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

(q) *Tumbling or burnishing wastewater.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals tumbled or burnished	
Copper	1.60	0.763
Nickel	0.688	0.463
Fluoride	74.4	33.0
Molybdenum	6.29	2.79
Oil and grease	12.5	12.5
TSS	18.8	15.0
pH	(1)	(1)

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

(r) *Sawing or grinding spent neat oils—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.

(s) *Sawing or grinding spent emulsions.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with emulsions	
Copper	0.380	0.181
Nickel	0.164	0.110
Fluoride	17.7	7.84
Molybdenum	1.5	0.663
Oil and grease	2.97	2.97
TSS	4.46	3.57
pH	(1)	(1)

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

(t) *Sawing or grinding contact cooling water.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with contact cooling water	
Copper	3.11	1.48
Nickel	1.34	0.899
Fluoride	145	64.2
Molybdenum	12.2	5.42
Oil and grease	24.3	24.3
TSS	36.5	29.2
pH	(1)	(1)

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

(u) *Sawing or grinding rinse.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground refractory metals rinsed	
Copper	0.018	0.009
Nickel	0.008	0.005
Fluoride	0.803	0.357
Molybdenum	0.068	0.030
Oil and grease	0.135	0.135
TSS	0.203	0.162
pH	(1)	(1)

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

(v) *Wet air pollution control scrubber blowdown.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed, ground, surface coated or surface treated	
Copper	1.01	0.480
Nickel	0.433	0.291
Fluoride	46.8	20.8
Molybdenum	3.96	1.76
Oil and grease	7.87	7.87
TSS	11.8	9.45
pH	(1)	(1)

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

(w) *Miscellaneous wastewater sources.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.442	0.211
Nickel	0.190	0.128
Fluoride	20.6	9.11
Molybdenum	1.74	0.770
Oil and grease	3.45	3.45
TSS	5.18	4.14
pH	(1)	(1)

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

(x) *Dye penetrant testing wastewater.*

SUBPART E—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals product tested	
Copper	0.100	0.048
Nickel	0.043	0.029
Fluoride	4.62	2.05
Molybdenum	0.391	0.173
Oil and grease	0.776	0.776
TSS	1.17	0.931
pH	(1)	(1)

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

(y) *Degreasing spent solvents—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.

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

§ 471.54 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, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in refractory metals forming process wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Rolling spent emulsions.*

SUBPART E—PSES

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	11.4
Molybdenum	2.84	1.47

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

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

(e) *Extrusion press hydraulic fluid leakage.*

SUBPART E—PSES

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

(f) *Forging spent lubricants—Subpart E—PSES.* There shall be no discharge of process wastewater pollutants.

(g) *Forging contact cooling water.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged refractory metals cooled with water	
Copper	0.062	0.033
Nickel	0.062	0.041
Fluoride	1.92	0.853
Molybdenum	0.214	0.111

(h) *Equipment cleaning wastewater.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.259	0.136
Nickel	0.261	0.173
Fluoride	8.09	3.59
Molybdenum	0.899	0.465

(i) *Metal powder production wastewater.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals powder produced	
Copper	0.534	0.281
Nickel	0.540	0.357
Fluoride	16.7	7.42
Molybdenum	1.86	0.961

(j) *Metal powder production floor wash wastewater—Subpart E—PSES.* There shall be no discharge of process wastewater pollutants.

(k) *Metal powder pressing spent lubricants—Subpart E—PSES.* There shall be no discharge of process wastewater pollutants.

(l) *Surface treatment spent baths.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	0.739	0.389
Nickel	0.747	0.494
Fluoride	23.2	10.3
Molybdenum	2.57	1.33

(m) *Surface treatment rinse.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	23.0	12.1
Nickel	23.3	15.4
Fluoride	720	320
Molybdenum	80.0	41.4

(n) *Alkaline cleaning spent baths.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	0.635	0.334
Nickel	0.642	0.424
Fluoride	19.9	8.82
Molybdenum	2.21	1.14

(o) *Alkaline cleaning rinse.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	15.5	8.16
Nickel	15.7	10.4
Fluoride	486.	216.0
Molybdenum	54.0	27.9

(p) *Molten salt rinse.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals treated with molten salt	
Copper	1.20	0.633
Nickel	1.22	0.804
Fluoride	37.7	16.7
Molybdenum	4.19	2.17

(q) *Tumbling or burnishing wastewater.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals tumbled or burnished	
Copper	2.38	1.25
Nickel	2.40	1.59
Fluoride	74.4	33.0
Molybdenum	8.27	4.28

(r) *Sawing or grinding spent neat oils—Subpart E—PSES.* There shall be no discharge of process wastewater pollutants.

(s) *Sawing or grinding spent emulsions.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with emulsions	
Copper	0.565	0.297
Nickel	0.570	0.377
Fluoride	17.7	7.84
Molybdenum	1.97	1.02

(t) *Sawing or grinding contact cooling water.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with contact cooling water	
Copper	4.62	2.43
Nickel	4.67	3.09
Fluoride	145.	64.2
Molybdenum	16.1	8.31

(u) *Sawing or grinding rinse.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground refractory metals rinsed	
Copper	0.026	0.014
Nickel	0.026	0.017
Fluoride	0.804	0.357
Molybdenum	0.089	0.046

(v) *Wet air pollution control blowdown.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed, surface coated or surface treated	
Copper	1.50	0.787
Nickel	1.51	1.00
Fluoride	46.9	20.8
Molybdenum	5.20	2.69

(w) *Miscellaneous wastewater sources.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.656	0.345
Nickel	0.663	0.438
Fluoride	20.6	9.11
Molybdenum	2.28	1.18

(x) *Dye penetrant testing wastewater.*

SUBPART E—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals product tested	
Copper	0.148	0.078
Nickel	0.149	0.099
Fluoride	4.62	2.05
Molybdenum	0.513	0.266

(y) *Degreasing spent solvents—Subpart E—PSES.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.55 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 standards for new sources (PSNS). The mass of wastewater pollutants in the

refractory metals forming process wastewater shall not exceed the values set forth below:

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

(b) *Rolling spent emulsions.*

SUBPART E—PSNS

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	0.549	0.262
Nickel	0.236	0.159
Fluoride	25.5	11.3
Molybdenum	2.16	0.957

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

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

(e) *Extrusion press hydraulic fluid leakage.*

SUBPART E—PSNS

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	1.53	0.726
Nickel	0.655	0.441
Fluoride	70.8	31.4
Molybdenum	5.99	2.66

(f) *Forging spent lubricants—Subpart E—PSNS.* There shall be no discharge of process wastewater pollutants.

(g) *Forging contact cooling water.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged refractory metals cooled with water	
Copper	0.041	0.320
Nickel	0.018	0.021
Fluoride	1.92	0.853
Molybdenum	0.163	0.072

(h) *Equipment cleaning wastewater.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.174	0.083
Nickel	0.075	0.051
Fluoride	8.09	3.59
Molybdenum	0.684	0.303

(i) *Metal powder production wastewater.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals powder produced	
Copper	0.360	0.172
Nickel	0.155	0.104
Fluoride	16.7	7.42
Molybdenum	1.42	0.627

(j) *Metal powder production floor wash wastewater—Subpart E—PSNS.* There shall be no discharge of process wastewater pollutants.

(k) *Metal powder pressing spent lubricants—Subpart E—PSNS.* There shall be no discharge of process wastewater pollutants.

(l) *Surface treatment spent baths.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	0.498	0.237
Nickel	0.214	0.144
Fluoride	23.2	10.3
Molybdenum	1.96	0.868

(m) *Surface treatment rinse.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals surface treated	
Copper	15.5	7.38
Nickel	6.66	4.48
Fluoride	720	320
Molybdenum	60.9	27.0

(n) *Alkaline cleaning spent baths.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	0.428	0.204
Nickel	0.184	0.124
Fluoride	19.9	8.82
Molybdenum	1.68	0.745

(o) *Alkaline cleaning rinse.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alkaline cleaned	
Copper	10.5	4.98
Nickel	4.49	3.02
Fluoride	48.6	216
Molybdenum	41.1	18.2

(p) *Molten salt rinse.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals treated with molten salt	
Copper	0.810	0.386
Nickel	0.348	0.234
Fluoride	37.7	16.7
Molybdenum	3.19	1.41

(q) *Tumbling or burnishing wastewater.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals tumbled or burnished	
Copper	1.60	0.763
Nickel	0.688	0.463
Fluoride	74.4	33.0
Molybdenum	6.29	2.79

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

(s) *Sawing or grinding spent emulsions.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with emulsions	
Copper	0.380	0.181
Nickel	0.164	0.110
Fluoride	17.7	7.84
Molybdenum	1.50	0.663

(t) *Sawing or grinding contact cooling water.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed or ground with contact cooling water	
Copper	3.11	1.48
Nickel	1.34	0.899
Fluoride	145	64.2
Molybdenum	12.2	5.42

(u) *Sawing or grinding rinse.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground refractory metals rinsed	
Copper	0.018	0.009
Nickel	0.008	0.005
Fluoride	0.803	0.357
Molybdenum	0.068	0.030

(v) *Wet air pollution control blowdown.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals sawed, ground, surface coated or surface treated	
Copper	1.01	0.480
Nickel	0.433	0.291
Fluoride	46.8	20.8
Molybdenum	3.96	1.76

(w) *Miscellaneous wastewater source.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals formed	
Copper	0.442	0.211
Nickel	0.192	0.128
Fluoride	20.6	9.11
Molybdenum	1.74	0.770

(x) *Dye penetrant testing wastewater.*

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals product tested	
Copper	0.100	0.048
Nickel	0.043	0.029
Fluoride	4.62	2.05
Molybdenum	0.391	0.173

(y) *Degreasing spend solvents—Subpart E—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

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

Subpart F—Titanium Forming Subcategory

§ 471.60 Applicability; description of the titanium 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 titanium forming subcategory.

§ 471.61 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.—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling contact cooling water.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium rolled with contact cooling water	
Cyanide	1.4	0.586
Lead	2.05	0.976
Zinc	7.13	2.98
Ammonia	651	286
Fluoride	291	129
Oil and grease	97.0	58.0
TSS	200.0	95.0
pH	(1)	(1)

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

(c) *Drawing spent neat oils—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion spent neat oils—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

(e) *Extrusion spent emulsions.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.9
Oil and grease	1.44	0.863
TSS	2.95	1.4
pH	(1)	(1)

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

(f) *Extrusion press hydraulic fluid leakage.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.052	0.022
Lead	0.075	0.036
Zinc	0.260	0.109
Ammonia	23.7	10.5
Fluoride	10.6	4.70
Oil and grease	3.56	2.14
TSS	7.30	3.47
pH	(1)	(1)

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

(g) *Forging spent lubricants—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

(h) *Forging contact cooling water.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged titanium cooled with water	
Cyanide	0.580	0.240
Lead	0.840	0.400
Zinc	2.92	1.22
Ammonia	267	117
Fluoride	119	52.8
Oil and grease	40.0	24.0
TSS	82.0	39.0
pH	(1)	(1)

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

(i) *Forging equipment cleaning wastewater.*

SUBPART F—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 forged	
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06
Oil and grease	0.800	0.480
TSS	1.64	0.780
pH	(1)	(1)

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

(j) *Forging press hydraulic fluid leakage.*

SUBPART F—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 forged	
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7
Oil and grease	20.2	12.1
TSS	41.4	19.7
pH	(1)	(1)

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

(k) *Tube reducing spent lubricants—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

(l) *Heat treatment contact cooling water—Subpart F—BPT.* There shall be

no allowance for the discharge of process wastewater pollutants.

(m) *Surface treatment spent baths.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.061	0.025
Lead	0.088	0.042
Zinc	0.304	0.127
Ammonia	27.7	12.2
Fluoride	12.4	5.49
Oil and grease	4.16	2.50
TSS	8.53	4.06
pH	(1)	(1)

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

(n) *Surface treatment rinse.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	8.47	3.51
Lead	12.3	5.84
Zinc	42.7	17.8
Ammonia	3,890	1,710
Fluoride	1,740	771
Oil and grease	584	351
TSS	1,200	570
pH	(1)	(1)

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

(o) *Wet air pollution control scrubber blowdown.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated or forged	
Cyanide	0.621	0.257
Lead	0.899	0.428
Zinc	3.13	1.31
Ammonia	285	126
Fluoride	128	56.5
Oil and grease	42.8	25.7
TSS	87.8	41.8
pH	(1)	(1)

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

(p) *Alkaline cleaning spent baths.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.070	0.029
Lead	0.101	0.048
Zinc	0.351	0.147
Ammonia	32.0	14.1
Fluoride	14.3	6.34
Oil and grease	4.80	2.88
TSS	9.84	4.68
pH	(1)	(1)

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

(q) *Alkaline cleaning rinse.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.801	0.331
Lead	1.16	0.552
Zinc	4.03	1.69
Ammonia	370	160
Fluoride	164	72.9
Oil and grease	55.2	33.1
TSS	113	53.8
pH	(1)	(1)

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

(r) *Molten salt rinse.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated with molten salt	
Cyanide	0.277	0.115
Lead	0.401	0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2
Oil and grease	19.1	11.5
TSS	39.2	18.6
pH	(1)	(1)

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

(s) *Tumbling wastewater.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tumbled	
Cyanide	0.229	0.095
Lead	0.332	0.158
Zinc	1.16	0.482
Ammonia	110	46
Fluoride	47.0	20.9
Oil and grease	15.8	9.48
TSS	32.4	15.4
pH	(1)	(1)

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

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

(u) *Sawing or grinding of spent emulsions.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with an emulsion	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83
Oil and grease	3.66	2.20
TSS	7.51	3.57
pH	(1)	(1)

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

(v) *Sawing or grinding contact cooling water.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with contact cooling water	
Cyanide	1.38	0.571
Lead	2.00	0.952
Zinc	6.95	2.91
Ammonia	635	279
Fluoride	283	126
Oil and grease	95.2	57.1
TSS	195	92.8
pH	(1)	(1)

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

(w) *Dye penetrant testing wastewater.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tested with dye penetrant methods	
Cyanide	0.325	0.135
Lead	0.471	0.224
Zinc	1.64	0.683
Ammonia	149	65.7
Fluoride	66.7	29.6
Oil and grease	22.4	13.5
TSS	45.9	21.9
pH	(1)	(1)

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

(x) *Miscellaneous wastewater sources.*

SUBPART F—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium formed	
Cyanide	0.010	0.004
Lead	0.014	0.007
Zinc	0.048	0.020
Ammonia	4.32	1.90
Fluoride	1.93	0.856
Oil and grease	0.648	0.389
TSS	1.33	0.632
pH	(1)	(1)

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

(y) *Degreasing spent solvents—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent neat oils—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling contact cooling water.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium rolled with contact cooling water	
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.90

(c) *Drawing spent neat oils—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion spent neat oils—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

(e) *Extrusion spent lubricants.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.90

(f) *Extrusion press hydraulic fluid leakage.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.052	0.022
Lead	0.075	0.036
Zinc	0.260	0.109
Ammonia	23.7	10.5
Fluoride	10.6	4.70

(g) *Forging spent lubricants—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

(h) *Forging contact cooling water.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged titanium cooled with water	
Cyanide	0.029	0.012
Lead	0.042	0.020
Zinc	0.146	0.061
Ammonia	13.3	5.86
Fluoride	5.95	2.64

(i) *Forging equipment cleaning wastewater.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged cyanide	
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06

(j) *Forging press hydraulic fluid leakage.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7

(k) *Tube reducing spent lubricants—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

(l) *Heat treatment contact cooling water—Subpart F—BAT.* There shall be no discharge allowance for process wastewater pollutants.

(m) *Surface treatment spent baths.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.061	0.025
Lead	0.088	0.042
Zinc	0.304	0.127
Ammonia	27.7	12.2
Fluoride	12.4	5.49

(n) *Surface treatment rinse.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.847	0.351
Lead	1.23	0.584
Zinc	4.27	1.78
Ammonia	389	171
Fluoride	174	77.1

(o) *Wet air pollutant control scrubber blowdown.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated or forged	
Cyanide	0.062	0.026
Lead	0.090	0.043
Zinc	0.313	0.131
Ammonia	28.5	12.6
Fluoride	12.8	5.68

(p) *Alkaline cleaning spent baths.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.070	0.029
Lead	0.101	0.048
Zinc	0.351	0.147
Ammonia	32	14.1
Fluoride	14.3	6.34

(q) *Akaline cleaning rinse.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.080	0.033
Lead	0.116	0.055
Zinc	0.403	0.169
Ammonia	36.8	16.2
Fluoride	16.4	7.29

(r) *Molten salt rinse.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated with molten salt	
Cyanide	0.277	0.115
Lead	0.401	0.191
Zinc	1.40	0.583
Ammonia	128	56
Fluoride	56.8	25.2

(s) *Tumbling wastewater.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tumbled	
Cyanide	0.022	0.010
Lead	0.033	0.016
Zinc	0.116	0.048
Ammonia	11.0	4.60
Fluoride	4.70	2.09

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

(u) *Sawing or grinding spent emulsions.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with emulsions	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83

(v) *Sawing or grinding contact cooling water.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) to titanium sawed or ground with contact cooling water	
Cyanide	0.138	0.057
Lead	0.200	0.095
Zinc	0.695	0.291
Ammonia	63.5	27.9
Fluoride	28.3	12.6

(w) *Dye penetrant testing wastewater.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tested with dye penetrant methods	
Cyanide	0.325	0.135
Lead	0.471	0.224
Zinc	1.64	0.683
Ammonia	149	65.7
Fluoride	66.7	29.6

(x) *Miscellaneous wastewater sources.*

SUBPART F—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium formed	
Cyanide	0.010	0.004
Lead	0.014	0.007
Zinc	0.048	0.020
Ammonia	4.32	1.90
Fluoride	1.93	0.856

(y) *Degreasing spent solvents—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.63 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The discharge of wastewater pollutants from titanium process wastewater shall not exceed the values set forth below:

(a) *Rolling spent neat oils—Subpart F—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling contact cooling water.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium rolled with contact cooling water	
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.9
Oil and grease	9.76	5.86
TSS	20.0	9.52
pH	(1)	(1)

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

(c) *Drawing spent neat oils—Subpart F—NSPS.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion spent neat oils—Subpart F—NSPS.* There shall be no discharge of process wastewater pollutants.

(e) *Extrusion spent emulsions.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.9
Oil and grease	1.44	0.863
TSS	2.95	1.40
pH	(1)	(1)

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

(f) *Extrusion press hydraulic fluid leakage.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.052	0.022
Lead	0.075	0.036
Zinc	0.260	0.109
Ammonia	23.7	10.5
Fluoride	10.6	4.70
Oil and grease	3.56	2.14
TSS	7.30	3.47
pH	(1)	(1)

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

(g) *Forging spent lubricants—Subpart F—NSPS.* There shall be no discharge of process wastewater pollutants.

(h) *Forging contact cooling water.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged titanium cooled with water	
Cyanide	0.029	0.012
Lead	0.0420	0.020
Zinc	0.146	0.061
Ammonia	13.3	5.86
Fluoride	5.95	2.64
Oil and grease	2.00	1.20
TSS	4.10	1.95
pH	(1)	(1)

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

(i) *Forging equipment cleaning wastewater.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06
Oil and grease	0.800	0.490
TSS	1.64	0.780
pH	(1)	(1)

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

(j) *Forging press hydraulic fluid leakage.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7
Oil and grease	20.2	12.1
TSS	41.4	19.7
pH	(1)	(1)

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

(k) *Tube reducing spent lubricants—Subpart F—NSPS.* There shall be no discharge of process wastewater pollutants.

(l) *Heat treatment contact cooling water—Subpart F—NSPS.* There shall be no discharge allowance for the discharge of process wastewater pollutants.

(m) *Surface treatment spent baths.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.061	0.025
Lead	0.088	0.042
Zinc	0.304	0.127
Ammonia	27.7	12.2
Fluoride	12.4	5.49
Oil and grease	4.16	2.50
TSS	8.53	4.06
pH	(1)	(1)

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

(n) *Surface treatment rinse.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.847	0.351
Lead	1.23	0.584
Zinc	4.27	1.78
Ammonia	389	171
Fluoride	174	77.1
Oil and grease	58.4	35.1
TSS	120	57.0
pH	(1)	(1)

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

(o) *Wet air pollution control scrubber blowdown.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated or forged	
Cyanide	0.062	0.026
Lead	0.090	0.043
Zinc	0.313	0.131
Ammonia	28.5	12.6
Fluoride	12.8	5.65
Oil and grease	4.28	2.57
TSS	8.78	4.18
pH	(1)	(1)

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

(p) *Alkaline cleaning spent baths.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.070	0.030
Lead	0.101	0.048
Zinc	0.351	0.147
Ammonia	32.0	14.1
Fluoride	14.3	6.34
Oil and grease	4.80	2.88
TSS	9.84	4.68
pH	(1)	(1)

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

(q) *Alkaline cleaning rinse.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.080	0.033
Lead	0.116	0.055
Zinc	0.403	0.169
Ammonia	36.8	16.2
Fluoride	16.4	7.29
Oil and grease	5.52	3.31
TSS	11.3	5.38
pH	(1)	(1)

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

(r) *Molten salt rinse.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated with molten salt	
Cyanide	0.277	0.115
Lead	0.401	0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2
Oil and grease	19.1	11.5
TSS	39.2	18.6
pH	(1)	(1)

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

(s) *Tumbling wastewater.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tumbled	
Cyanide	0.023	0.010
Lead	0.033	0.016
Zinc	0.116	0.048
Ammonia	10.6	4.63
Fluoride	4.70	2.09
Oil and grease	1.58	0.948
TSS	3.24	1.54
pH	(1)	(1)

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

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

(u) *Sawing or grinding spent emulsions.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with emulsions	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83
Oil and grease	3.66	2.20
TSS	7.51	3.57
pH	(1)	(1)

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

(v) *Sawing or grinding contact cooling water.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with contact cooling water	
Cyanide	0.138	0.057
Lead	0.200	0.095
Zinc	0.695	0.291
Ammonia	63.5	27.9
Fluoride	28.3	12.6
Oil and grease	9.52	5.71
TSS	19.5	9.28
pH	(1)	(1)

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

(w) *Dye penetrant testing wastewater.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tested using dye penetrant methods	
Cyanide	0.325	0.135
Lead	0.471	0.224
Zinc	1.64	0.683
Ammonia	149	65.7
Fluoride	66.7	29.6
Oil and grease	22.4	13.5
TSS	45.9	21.9
pH	(1)	(1)

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

(x) *Miscellaneous wastewater sources.*

SUBPART F—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium formed	
Cyanide	0.010	0.004
Lead	0.014	0.007
Zinc	0.048	0.020
Ammonia	4.32	1.90
Fluoride	1.93	0.856
Oil and grease	0.648	0.389
TSS	1.33	0.63
pH	(1)	(1)

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

(y) *Degreasing spent solvents—Subpart F—NSPS.* There shall be no discharge of process wastewater pollutant.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.64 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, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in titanium forming process wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Rolling contact cooling water.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium rolled with contact cooling water	
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.9

(c) *Drawing spent neat oils—Subpart F—PSES.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion spent neat oils—Subpart F—PSES.* There shall be no discharge of process wastewater pollutants.

(e) *Extrusion spent emulsions.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.90

(f) *Extrusion press hydraulic fluid leakage.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.052	0.022
Lead	0.75	0.036
Zinc	0.260	0.109
Ammonia	23.7	10.5
Fluoride	10.6	4.70

(g) *Forging spent lubricants—Subpart F—PSES.* There shall be no discharge of process wastewater pollutants.

(h) *Forging contact cooling water.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged titanium cooled with water	
Cyanide	0.029	0.012
Lead	0.042	0.020
Zinc	0.146	0.061
Ammonia	13.3	5.86
Fluoride	5.95	2.64

(i) *Forging equipment cleaning wastewater.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06

(j) *Forging press hydraulic fluid leakage.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7

(k) *Tube reducing spent lubricants—Subpart F—PSES.* There shall be no discharge of process wastewater pollutants.

(l) *Heat treatment contact cooling water—Subpart F—PSES.* There shall be no discharge allowance for the discharge of process wastewater pollutants.

(m) *Surface treatment spent baths.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.061	0.025
Lead	0.088	0.042
Zinc	0.304	0.127
Ammonia	27.7	12.2
Fluoride	12.4	5.49

(n) *Surface treatment rinse.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.847	0.351
Lead	1.23	0.584
Zinc	4.27	1.78
Ammonia	389	171
Fluoride	174	77.1

(o) *Wet air pollution control scrubber blowdown.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated or forged	
Cyanide	0.062	0.026
Lead	0.090	0.043
Zinc	0.313	0.131
Ammonia	28.5	12.6
Fluoride	12.8	5.65

(p) *Alkaline cleaning spent baths.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.070	0.029
Lead	0.101	0.048
Zinc	0.351	0.147
Ammonia	32.0	14.1
Fluoride	14.3	6.34

(q) *Alkaline cleaning rinse.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.080	0.033
Lead	0.116	0.055
Zinc	0.403	0.169
Ammonia	36.8	16.2
Fluoride	16.4	7.29

(r) *Molten salt rinse.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated with molten salt	
Cyanide	0.277	0.115
Lead	0.401	0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2

(s) *Tumbling wastewater.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tumbled	
Cyanide	0.023	0.010
Lead	0.033	0.016
Zinc	0.116	0.048
Ammonia	10.6	4.63
Fluoride	4.70	2.09

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

(u) *Sawing or grinding spent emulsions.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with emulsions	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83

(v) *Sawing or grinding contact cooling water.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with contact cooling water	
Cyanide	0.138	0.057
Lead	0.200	0.095
Zinc	0.695	0.291
Ammonia	63.5	27.9
Fluoride	28.3	12.6

(w) *Dye penetrant testing wastewater.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated using dye penetrant methods	
Cyanide	0.325	0.135
Lead	0.471	0.224
Zinc	1.64	0.638
Ammonia	149	65.7
Fluoride	66.7	29.6

(x) *Miscellaneous wastewater sources.*

SUBPART F—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium formed	
Cyanide	0.010	0.004
Lead	0.014	0.007
Zinc	0.048	0.020
Ammonia	4.32	1.90
Fluoride	1.93	0.856

(y) *Degreasing spent solvents—Subpart F—PSES.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.65 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 standards for new sources (PSNS). The mass of wastewater pollutants in the titanium forming process wastewater shall not exceed the values set forth below:

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

(b) *Rolling contact cooling water.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium rolled with contact cooling water	
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.9

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

(d) *Extrusion spent neat oils—Subpart F—PSNS.* There shall be no discharge of process wastewater pollutants.

(e) *Extrusion spent emulsions.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.90

(f) *Extrusion press hydraulic fluid leakage.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.052	0.022
Lead	0.075	0.036
Zinc	0.260	0.109
Ammonia	23.7	10.5
Fluoride	10.6	4.70

(g) *Forging spent lubricants—Subpart F—PSNS.* There shall be no discharge of process wastewater pollutants.

(h) *Forging contact cooling water.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of forged titanium cooled with water	
Cyanide	0.029	0.012
Lead	0.042	0.020
Zinc	0.146	0.061
Ammonia	13.3	5.86
Fluoride	5.95	2.64

(i) *Forging equipment cleaning wastewater.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06

(j) *Forging press hydraulic fluid leakage.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium forged	
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7

(k) *Tube reducing spent lubricants—Subpart F—PSNS.* There shall be no discharge of process wastewater pollutants.

(l) *Heat treatment contact cooling water—Subpart F—PSNS.* There shall be no discharge allowance for the discharge of process wastewater pollutants.

(m) *Surface treatment spent baths.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.061	0.025
Lead	0.088	0.042
Zinc	0.304	0.127
Ammonia	27.7	12.2
Fluoride	12.4	5.49

(n) *Surface treatment rinse.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated	
Cyanide	0.847	0.351
Lead	1.23	0.584
Zinc	4.27	1.78
Ammonia	389	171
Fluoride	174	77.1

(o) *Wet air pollution control scrubber blowdown.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium surface treated or forged	
Cyanide	0.062	0.026
Lead	0.090	0.043
Zinc	0.313	0.131
Ammonia	28.5	12.6
Fluoride	12.8	5.65

(p) *Alkaline cleaning spent baths.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.070	0.029
Lead	0.101	0.048
Zinc	0.351	0.147
Ammonia	32.0	14.1
Fluoride	14.3	6.34

(q) *Alkaline cleaning rinse.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium alkaline cleaned	
Cyanide	0.080	0.033
Lead	0.116	0.055
Zinc	0.403	0.169
Ammonia	36.8	16.2
Fluoride	16.4	7.29

(r) *Molten salt rinse.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated with molten salt	
Cyanide	0.277	0.115
Lead	0.401	0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2

(s) *Tumbling wastewater.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium tumbled	
Cyanide	0.023	0.010
Lead	0.033	0.016
Zinc	0.116	0.048
Ammonia	10.6	4.63
Fluoride	4.70	2.09

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

(u) *Sawing or grinding spent emulsions.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with emulsions	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83

(v) *Sawing or grinding contact cooling water.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with contact cooling water	
Cyanide	0.138	0.057
Lead	0.200	0.095
Zinc	0.695	0.291
Ammonia	63.5	27.9
Fluoride	28.3	12.6

(w) *Dye penetrant testing wastewater.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium treated using dye penetrant methods	
Cyanide	0.325	0.135
Lead	0.471	0.224
Zinc	1.64	0.683
Ammonia	149	65.7
Fluoride	66.7	29.6

(x) *Miscellaneous wastewater sources.*

SUBPART F—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium formed	
Cyanide	0.010	0.004
Lead	0.014	0.007
Zinc	0.048	0.020
Ammonia	4.32	1.90
Fluoride	1.93	0.856

(y) *Degreasing spent solvents—Subpart F—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

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

Subpart G—Uranium Forming Subcategory

§ 471.70 Applicability; description of the uranium 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 uranium forming subcategory.

§ 471.71 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 praticable control technology currently available (BPT):

(a) *Extrusion spent lubricants—Subpart G—BPT.* There shall be no discharge process wastewater pollutants.

(b) *Extrusion tool contact cooling water.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium extruded	
Cadium	0.117	0.052
Chromium	0.152	0.062
Copper	0.654	0.344
Lead	0.145	0.069
Nickel	0.661	0.437
Fluoride	20.5	9.08
Molybdenum	2.28	1.18
Oil and grease	6.88	4.13
TSS	14.1	6.71
pH	(1)	(1)

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

(c) *Heat treatment contact cooling water.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded or forged uranium heat treated	
Cadium	0.646	0.285
Chromium	0.836	0.342
Copper	3.61	1.90
Lead	0.798	0.380
Nickel	3.65	2.42
Fluoride	113	50.2
Molybdenum	12.6	6.5
Oil and grease	38	22.8
TSS	77.9	37.1
pH	(1)	(1)

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

(d) *Forging spent lubricants—Subpart G—BPT.* There shall be no discharge of process wastewater pollutants.

(e) *Surface treatment spent baths.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.010	0.004
Chromium	0.012	0.005
Copper	0.052	0.027
Lead	0.012	0.006
Nickel	0.052	0.035
Fluoride	1.62	0.718
Molybdenum	0.180	0.093
Oil and grease	0.544	0.327
TSS	1.12	0.531
pH	(1)	(1)

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

(f) *Surface treatment rinse.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.115	0.050
Chromium	0.149	0.061
Copper	0.641	0.337
Lead	0.142	0.068
Nickel	0.647	0.428
Fluoride	20.1	8.90
Molybdenum	2.23	1.16
Oil and grease	6.74	4.05
TSS	13.8	6.57
pH	(1)	(1)

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

(g) *Wet air pollution control scrubber blowdown.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.00	0.0006
Chromium	0.002	0.0007
Copper	0.007	0.004
Lead	0.002	0.0007
Nickel	0.007	0.005
Fluoride	0.208	0.092
Molybdenum	0.023	0.012
Oil and grease	0.070	0.042
TSS	0.143	0.068
pH	(1)	(1)

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

(h) *Sawing or grinding spent emulsions.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with emulsions	
Cadmium	0.002	0.0009
Chromium	0.003	0.001
Copper	0.011	0.006
Lead	0.003	0.001
Nickel	0.011	0.007
Fluoride	0.338	0.150
Molybdenum	0.038	0.020
Oil and grease	0.114	0.068
TSS	0.233	0.111
pH	(1)	(1)

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

(i) *Sawing or grinding contact cooling water.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with contact cooling ater	
Cadmium	0.561	0.248
Chromium	0.726	0.297
Copper	3.14	1.65
Lead	0.693	0.330
Nickel	3.17	2.1
Fluoride	98.2	43.6
Molybdenum	10.9	5.65
Oil and grease	33.0	19.8
TSS	67.7	32.2
pH	(1)	(1)

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

(j) *Sawing or grinding rinse.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground uranium rinses	
Cadmium	0.002	0.0007
Chromium	0.002	0.0009
Copper	0.009	0.005
Lead	0.002	0.001
Nickel	0.009	0.006
Fluoride	0.277	0.123
Molybdenum	0.031	0.016
Oil and grease	0.093	0.056
TSS	0.191	0.091
pH	(1)	(1)

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

(k) *Area cleaning rinse.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.015	0.007
Chromium	0.019	0.008
Copper	0.082	0.043
Lead	0.018	0.009
Nickel	0.083	0.055
Fluoride	2.56	1.14
Molybdenum	0.284	0.147
Oil and grease	0.858	0.515
TSS	1.76	0.837
pH	[1]	[1]

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

(l) *Drum washwater.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.015	0.007
Chromium	0.020	0.008
Copper	0.084	0.045
Lead	0.019	0.009
Nickel	0.085	0.057
Fluoride	2.64	1.17
Molybdenum	0.293	0.152
Oil and grease	0.886	0.532
TSS	1.82	0.864
pH	[1]	[1]

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

(m) *Laundry washwater.*

SUBPART G—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/employee—day	
Cadmium	17.8	7.86
Chromium	23.1	9.43
Copper	99.6	52.4
Lead	22.0	10.5
Nickel	101	66.6
Fluoride	3,120	1,390
Molybdenum	347	179
Oil and grease	1,050	629
TSS	2,150	1,020
pH	[1]	[1]

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

(n) *Degreasing spent solvents—Subpart G—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Extrusion spent lubricants—Subpart G—BAT.* There shall be no discharge of process wastewater pollutants.

(b) *Extrusion tool contact cooling water.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium extruded	
Cadmium	0.007	0.003
Chromium	0.013	0.005
Copper	0.044	0.021
Lead	0.010	0.005
Nickel	0.019	0.013
Fluoride	2.05	0.908
Molybdenum	0.173	0.077

(c) *Heat treatment contact cooling water.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded or forged uranium heat treated	
Cadmium	0.006	0.003
Chromium	0.012	0.005
Copper	0.040	0.019
Lead	0.009	0.004
Nickel	0.017	0.012
Fluoride	1.86	0.827
Molybdenum	0.158	0.070

(d) *Forging spent lubricants—Subpart G—BAT.* There shall be no discharge of process wastewater pollutants.

(e) *Surface treatment spent baths.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.006	0.002
Chromium	0.010	0.004
Copper	0.035	0.017
Lead	0.008	0.004
Nickel	0.015	0.010
Fluoride	1.62	0.718
Molybdenum	0.137	0.061

(f) *Surface treatment rinse.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.068	0.027
Chromium	0.125	0.051
Copper	0.432	0.260
Lead	0.095	0.044
Nickel	0.186	0.125
Fluoride	20.1	8.90
Molybdenum	1.70	0.752

(g) *Wet air pollution control scrubber blowdown.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.0007	0.0003
Chromium	0.001	0.0005
Copper	0.005	0.002
Lead	0.001	0.0005
Nickel	0.002	0.001
Fluoride	0.208	0.092
Molybdenum	0.018	0.008

(h) *Sawing or grinding spent emulsions.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with emulsions	
Cadmium	0.001	0.0005
Chromium	0.002	0.0009
Copper	0.007	0.004
Lead	0.002	0.001
Nickel	0.003	0.002
Fluoride	0.338	0.150
Molybdenum	0.029	0.013

(i) *Sawing or grinding contact cooling water.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with contact cooling water	
Cadmium	0.033	0.013
Chromium	0.061	0.025
Copper	0.211	0.101
Lead	0.046	0.022
Nickel	0.091	0.061
Fluoride	9.82	4.36
Molybdenum	0.830	0.368

(j) *Sawing or grinding rinse.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground uranium rinse	
Cadmium	0.001	0.0004
Chromium	0.002	0.0007
Copper	0.006	0.003
Lead	0.002	0.0006
Nickel	0.003	0.002
Fluoride	0.277	0.123
Molybdenum	0.024	0.011

(k) *Area cleaning rinse.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.009	0.004
Chromium	0.016	0.007
Copper	0.055	0.026
Lead	0.012	0.006
Nickel	0.024	0.016
Fluoride	2.56	1.14
Molybdenum	0.216	0.096

(l) *Drum, washwater.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.009	0.004
Chromium	0.017	0.007
Copper	0.057	0.027
Lead	0.013	0.006
Nickel	0.025	0.017
Fluoride	2.64	1.17
Molybdenum	0.223	0.099

(m) *Laundry washwater.*

SUBPART G—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/employee—day	
Cadmium	5.24	2.10
Chromium	9.70	3.93
Copper	33.6	16.0
Lead	7.34	3.41
Nickel	14.4	9.70
Fluoride	1.560	692
Molybdenum	132	58.4

(n) *Degreasing spent solvents—Subpart G—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.73 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutants in the uranium forming process wastewater shall not exceed the following values:

(a) *Extrusion spent lubricants—Subpart G—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Extrusion tool contact cooling water.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium extruded	
Cadmium	0.007	0.003
Chromium	0.013	0.005
Copper	0.044	0.021
Lead	0.010	0.005
Nickel	0.019	0.013
Fluoride	2.05	0.908
Molybdenum	0.173	0.077
Oil and grease	0.344	0.344
TSS	0.516	0.413
pH	[1]	[1]

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

(c) *Heat treatment contact cooling water.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded or forged uranium heat treated	
Cadmium	0.006	0.003
Chromium	0.012	0.005
Copper	0.040	0.019
Lead	0.009	0.004
Nickel	0.017	0.012
Fluoride	1.86	0.827
Molybdenum	0.158	0.070
Oil and grease	0.313	0.313
TSS	0.470	0.376
pH	[1]	[1]

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

(d) *Forging spent lubricants—Subpart G—NSPS.* There shall be no discharge of process wastewater pollutants.

(e) *Surface treatment spent baths.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.006	0.002
Chromium	0.010	0.004
Copper	0.035	0.017
Lead	0.008	0.004
Nickel	0.015	0.010
Fluoride	1.62	0.718
Molybdenum	0.137	0.061
Oil and grease	0.272	0.272
TSS	0.408	0.327
pH	(1)	(1)

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

(f) *Surface treatment rinse.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.068	0.027
Chromium	0.125	0.051
Copper	0.432	0.206
Lead	0.095	0.044
Nickel	0.186	0.125
Fluoride	20.1	8.90
Molybdenum	1.70	0.752
Oil and grease	3.37	3.37
TSS	5.06	4.05
pH	(1)	(1)

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

(g) *Wet air pollution control scrubber blowdown.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.0007	0.0003
Chromium	0.001	0.0005
Copper	0.005	0.002
Lead	0.001	0.0005
Nickel	0.002	0.001
Fluoride	0.208	0.092
Molybdenum	0.018	0.008
Oil and grease	0.035	0.035
TSS	0.053	0.042
pH	(1)	(1)

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

(h) *Sawing or grinding spent emulsions.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with emulsions	
Cadmium	0.001	0.0005
Chromium	0.002	0.0009
Copper	0.007	0.004
Lead	0.002	0.0008
Nickel	0.003	0.002
Fluoride	0.338	0.150
Molybdenum	0.029	0.013
Oil and grease	0.057	0.057
TSS	0.085	0.068
pH	(1)	(1)

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

(i) *Sawing or grinding contact cooling water.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with contact cooling water	
Cadmium	0.033	0.013
Chromium	0.061	0.025
Copper	0.211	0.101
Lead	0.046	0.022
Nickel	0.091	0.061
Fluoride	9.82	4.36
Molybdenum	0.830	0.368
Oil and grease	1.65	1.65
TSS	2.48	1.98
pH	(1)	(1)

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

(j) *Sawing or grinding rinse.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground uranium rinsed	
Cadmium	0.001	0.0004
Chromium	0.002	0.0007
Copper	0.006	0.003
Lead	0.002	0.0006
Nickel	0.003	0.002
Fluoride	0.277	0.123
Molybdenum	0.024	0.011
Oil and grease	0.047	0.047
TSS	0.070	0.056
pH	(1)	(1)

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

(k) *Area cleaning rinse.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.009	0.004
Chromium	0.016	0.007
Copper	0.055	0.026
Lead	0.012	0.006
Nickel	0.024	0.016
Fluoride	2.56	1.14
Molybdenum	0.216	0.096
Oil and grease	0.429	0.429
TSS	0.644	0.515
pH	(1)	(1)

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

(l) *Drum washwater.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.009	0.004
Chromium	0.017	0.007
Copper	0.057	0.027
Lead	0.013	0.006
Nickel	0.025	0.017
Fluoride	2.64	1.17
Molybdenum	0.223	0.099
Oil and grease	0.443	0.443
TSS	0.665	0.532
pH	(1)	(1)

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

(m) *Laundry washwater.*

SUBPART G—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/employee—day	
Cadmium	5.24	2.10
Chromium	9.70	3.93
Copper	33.6	16.0
Lead	7.34	3.41
Nickel	14.4	9.70
Fluoride	1,560	692
Molybdenum	132	58.4
Oil and grease	262	262
TSS	393	315
pH	(1)	(1)

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

(n) *Degreasing spent solvents—Subpart G—NSPS.* There shall be no discharge of process waster pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.74 Pretreatment standards for existing sources (PSES). [Reserved]

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

(a) *Extrusion spent lubricants—Subpart G—PSNS.* There shall be no discharge of process wastewater pollutants.

(b) *Extrusion tool contact cooling water.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium extruded	
Cadmium	0.007	0.003
Chromium	0.013	0.005
Copper	0.044	0.021
Lead	0.010	0.005
Nickel	0.019	0.013
Fluoride	2.05	0.908
Molybdenum	0.173	0.077

(c) *Heat treatment contact cooling water.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of extruded or forged uranium heat treated	
Cadmium	0.006	0.003
Chromium	0.012	0.005
Copper	0.040	0.019
Lead	0.009	0.004
Nickel	0.017	0.012
Fluoride	1.86	0.827
Molybdenum	0.158	0.070

(d) *Forging spent lubricants—Subpart G—PSNS.* There shall be no discharge of process wastewater pollutants.

(e) *Surface treatment spent baths.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.006	0.002
Chromium	0.010	0.004
Copper	0.035	0.017
Lead	0.008	0.004
Nickel	0.015	0.010
Fluoride	1.62	0.718
Molybdenum	0.137	0.061

(f) *Surface treatment rinse.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.068	0.027
Chromium	0.125	0.051
Copper	0.432	0.206
Lead	0.095	0.044
Nickel	0.186	0.125
Fluoride	20.1	8.90
Molybdenum	1.70	0.752

(g) *Wet air pollution control scrubber blowdown.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium surface treated	
Cadmium	0.0007	0.0003
Chromium	0.001	0.0005
Copper	0.005	0.002
Lead	0.001	0.0005
Nickel	0.002	0.001
Fluoride	0.208	0.092
Molybdenum	0.018	0.008

(h) *Sawing or grinding spent emulsions.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with emulsions	
Cadmium	0.001	0.0005
Chromium	0.002	0.0009
Copper	0.007	0.004
Lead	0.002	0.0008
Nickel	0.003	0.002
Fluoride	0.338	0.150
Molybdenum	0.029	0.013

(i) *Sawing or grinding contact cooling water.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium sawed or ground with contact cooling water	
Cadmium	0.033	0.013
Chromium	0.061	0.025
Copper	0.211	0.101
Lead	0.046	0.022
Nickel	0.091	0.061
Fluoride	9.82	4.36
Molybdenum	0.830	0.368

(j) *Sawing or grinding rinse.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground uranium rinsed	
Cadmium	0.001	0.0004
Chromium	0.002	0.0007
Copper	0.006	0.003
Lead	0.002	0.0006
Nickel	0.003	0.002
Fluoride	0.277	0.123
Molybdenum	0.024	0.011

(k) *Area cleaning rinse.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.009	0.004
Chromium	0.016	0.007
Copper	0.055	0.026
Lead	0.012	0.006
Nickel	0.024	0.016
Fluoride	2.56	1.14
Molybdenum	0.216	0.096

(l) *Drum washwater.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of uranium formed	
Cadmium	0.009	0.004
Chromium	0.017	0.007
Copper	0.057	0.027
Lead	0.013	0.006
Nickel	0.025	0.017
Fluoride	2.64	1.17
Molybdenum	0.223	0.099

(m) *Laundry washwater.*

SUBPART G—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/employee—day	
Cadmium	5.24	2.10
Chromium	9.70	3.93
Copper	33.6	16.0
Lead	7.34	3.41
Nickel	14.4	9.70
Fluoride	1,560	692
Molybdenum	132	58.4

(n) *Degreasing spent solvents—Subpart G—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

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

Subpart H—Zinc Forming Subcategory

§ 471.80 Applicability; description of the zinc 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 zinc forming subcategory.

§ 471.81 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—Subpart H—BPT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with emulsions	
Chromium	0.0006	0.0003
Copper	0.003	0.002
Cyanide	0.0004	0.0002
Zinc	0.002	0.0009
Oil and grease	0.028	0.017
TSS	0.057	0.027
pH	[1]	[1]

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

(c) *Rolling contact cooling water.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with contact cooling water	
Chromium	0.236	0.0097
Copper	1.02	0.536
Cyanide	0.156	0.065
Zinc	0.783	0.327
Oil and grease	10.7	6.43
TSS	22.0	10.5
pH	(1)	(1)

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

(d) *Drawing spent emulsions.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc drawn with emulsions	
Chromium	0.003	0.001
Copper	0.011	0.006
Cyanide	0.002	0.0007
Zinc	0.009	0.004
Oil and grease	0.116	0.070
TSS	0.238	0.113
pH	(1)	(1)

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

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

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc cast by the direct chill method	
Chromium	0.222	0.091
Copper	0.960	0.505
Cyanide	0.147	0.061
Zinc	0.738	0.308
Oil and grease	10.1	6.06
TSS	20.7	9.85
pH	(1)	(1)

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

(f) *Stationary casting contact cooling water—Subpart H—BPT.* There shall be no discharge of process wastewater pollutants.

(g) *Heat treatment contact cooling water.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc heat treated	
Chromium	0.336	0.138
Copper	1.45	0.763
Cyanide	0.221	0.092
Zinc	1.12	0.466
Oil and grease	15.3	9.16
TSS	31.3	14.9
pH	(1)	(1)

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

(h) *Surface treatment spent baths.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.039	0.016
Copper	0.169	0.089
Cyanide	0.026	0.011
Zinc	0.130	0.054
Oil and grease	1.78	1.07
TSS	3.64	1.73
pH	(1)	(1)

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

(i) *Surface treatment rinse.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	1.58	0.645
Copper	6.80	3.58
Cyanide	1.04	0.430
Zinc	5.23	2.19
Oil and grease	71.6	43.0
TSS	147	69.8
pH	(1)	(1)

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

(j) *Alkaline cleaning spent baths.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.002	0.0007
Copper	0.007	0.004
Cyanide	0.001	0.0004
Zinc	0.005	0.002
Oil and grease	0.071	0.043
TSS	0.146	0.069
pH	(1)	(1)

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

(k) *Alkaline cleaning rinse.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.744	0.304
Copper	3.21	1.69
Cyanide	0.490	0.203
Zinc	2.47	1.03
Oil and grease	33.8	20.3
TSS	69.3	33.0
pH	(1)	(1)

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

(l) *Sawing or grinding spent emulsions.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc sawed or ground with emulsions	
Chromium	0.011	0.005
Copper	0.045	0.024
Cyanide	0.007	0.003
Zinc	0.035	0.015
Oil and grease	0.476	0.286
TSS	0.976	0.464
pH	(1)	(1)

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

(m) *Electrocoating rinse.*

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc electrocoated	
Chromium	1.01	0.412
Copper	4.35	2.29
Cyanide	0.664	0.275
Zinc	3.35	1.40
Oil and grease	45.8	27.5
TSS	93.9	44.7
pH	(1)	(1)

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

(n) *Degreasing spent solvents—Subpart H—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.82 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent neat oils—Subpart H—BAT.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with emulsions	
Chromium	0.0005	0.0002
Copper	0.002	0.0009
Cyanide	0.0003	0.0001
Zinc	0.002	0.0006

(c) *Rolling contact cooling water.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with contact cooling water	
Chromium	0.020	0.009
Copper	0.069	0.033
Cyanide	0.011	0.004
Zinc	0.055	0.023

(d) *Drawing spent emulsions.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc drawn with emulsions	
Chromium	0.002	0.0009
Copper	0.008	0.004
Cyanide	0.001	0.0005
Zinc	0.006	0.003

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

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc cast by the direct chill method	
Chromium	0.019	0.008
Copper	0.065	0.031
Cyanide	0.010	0.004
Zinc	0.052	0.021

(f) *Stationary casting contact cooling water—Subpart H—BAT.* There shall be no discharge of process wastewater pollutants.

(g) *Heat treatment contact cooling water.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc heat treated	
Chromium	0.029	0.012
Copper	0.098	0.047
Cyanide	0.016	0.006
Zinc	0.078	0.032

(h) *Surface treatment spent baths.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.033	0.014
Copper	0.114	0.054
Cyanide	0.018	0.007
Zinc	0.091	0.038

(i) *Surface treatment rinse.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.133	0.054
Copper	0.457	0.219
Cyanide	0.072	0.029
Zinc	0.365	0.151

(j) *Alkaline cleaning spent baths.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.002	0.0006
Copper	0.005	0.002
Cyanide	0.0007	0.0003
Zinc	0.004	0.002

(k) *Alkaline cleaning rinse.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.626	0.254
Copper	2.17	1.03
Cyanide	0.338	0.135
Zinc	1.73	0.710

(l) *Sawing or grinding spent emulsions.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc sawed or ground with emulsions	
Chromium	0.009	0.004
Copper	0.031	0.015
Cyanide	0.005	0.002
Zinc	0.025	0.010

(m) *Electrocoating rinse.*

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc electrocoated	
Chromium	0.085	0.035
Copper	0.293	0.140
Cyanide	0.046	0.019
Zinc	0.234	0.096

(n) *Degreasing spent solvents—Subpart H—BAT.* There shall be no discharge or process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.83 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 H—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Rolling spent emulsions.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with emulsions	
Chromium	0.0005	0.0002
Copper	0.002	0.0009
Cyanide	0.0003	0.0001
Zinc	0.002	0.0006
Oil and grease	0.014	0.014
TSS	0.021	0.017
pH	[1]	[1]

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

(c) *Rolling contact cooling water.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with contact cooling water	
Chromium	0.020	0.009
Copper	0.069	0.037
Cyanide	0.011	0.004
Zinc	0.055	0.023
Oil and grease	0.536	0.536
TSS	0.804	0.643
pH	[1]	[1]

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

(d) *Drawing spent emulsions.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc drawn with emulsions	
Chromium	0.002	0.0009
Copper	0.008	0.004
Cyanide	0.001	0.0005
Zinc	0.006	0.003
Oil and grease	0.058	0.058
TSS	0.087	0.070
pH	[1]	[1]

[1] Within the range of 7.5 to 10.0 at all times

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

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc cast by the direct chill method	
Chromium	0.019	0.008
Copper	0.065	0.031
Cyanide	0.010	0.004
Zinc	0.052	0.021
Oil and grease	0.505	0.505
TSS	0.758	0.606
pH	(1)	(1)

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

(f) *Stationary casting contact cooling water—Subpart H—NSPS.* There shall be no discharge of process wastewater pollutants.

(g) *Heat treatment contact cooling water.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc heat treated	
Chromium	0.029	0.012
Copper	0.098	0.047
Cyanide	0.016	0.006
Zinc	0.078	0.032
Oil and grease	0.763	0.763
TSS	1.15	0.916
pH	(1)	(1)

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

(h) *Surface treatment spent baths.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.033	0.014
Copper	0.114	0.054
Cyanide	0.018	0.007
Zinc	0.091	0.038
Oil and grease	0.887	0.887
TSS	1.33	1.07
pH	(1)	(1)

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

(i) *Surface treatment rinse.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.133	0.054
Copper	0.459	0.219
Cyanide	0.072	0.029
Zinc	0.365	0.151
Oil and grease	3.58	3.58
TSS	5.37	4.30
pH	(1)	(1)

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

(j) *Alkaline cleaning spent baths.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.002	0.0006
Copper	0.005	0.002
Cyanide	0.0007	0.0003
Zinc	0.004	0.002
Oil and grease	0.036	0.036
TSS	0.054	0.043
pH	(1)	(1)

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

(k) *Alkaline cleaning rinse.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.626	0.259
Copper	2.17	1.03
Cyanide	0.338	0.135
Zinc	1.73	0.710
Oil and grease	16.9	16.9
TSS	25.4	20.3
pH	(1)	(1)

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

(l) *Sawing or grinding spent emulsions.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc sawed or ground with emulsions	
Chromium	0.009	0.004
Copper	0.031	0.015
Cyanide	0.005	0.002
Zinc	0.025	0.010
Oil and grease	0.235	0.235
TSS	0.357	0.286
pH	(1)	(1)

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

(m) *Electrocoating rinse.*

SUBPART H—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc electrocoated	
Chromium	0.085	0.035
Copper	0.293	0.140
Cyanide	0.046	0.019
Zinc	0.234	0.096
Oil and grease	2.29	2.29
TSS	3.44	2.75
pH	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times

(n) *Degreasing spent solvents—Subpart H—NSPS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.84 Pretreatment standards for existing sources (PSES). [Reserved]

§ 471.85 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 standards for new sources (PSNS). The mass of the wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Rolling spent emulsions.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with emulsions	
Chromium	0.0005	0.0002
Copper	0.002	0.0009
Cyanide	0.0003	0.0001
Zinc	0.002	0.0006

(c) *Rolling contact cooling water.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with contact cooling water	
Chromium	0.020	0.008
Copper	0.069	0.033
Cyanide	0.011	0.004
Zinc	0.055	0.023

(d) *Drawing spent emulsions.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc drawn with emulsions	
Chromium	0.002	0.0009
Copper	0.008	0.004
Cyanide	0.001	0.0005
Zinc	0.006	0.003

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

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc cast by the direct chill method	
Chromium	0.019	0.008
Copper	0.065	0.031
Cyanide	0.010	0.004
Zinc	0.052	0.021

(f) *Stationary casting contact cooling water—Subpart H—PSNS.* There shall be

no discharge of process wastewater pollutants.

(g) *Heat treatment contact cooling water.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc heat treated	
Chromium	0.029	0.012
Copper	0.098	0.047
Cyanide	0.016	0.006
Zinc	0.078	0.032

(h) *Surface treatment spent baths.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.033	0.014
Copper	0.114	0.054
Cyanide	0.018	0.007
Zinc	0.091	0.038

(i) *Surface treatment rinse.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.133	0.054
Copper	0.459	0.219
Cyanide	0.072	0.029
Zinc	0.365	0.151

(j) *Alkaline cleaning spent baths.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.002	0.0006
Copper	0.005	0.002
Cyanide	0.0007	0.0003
Zinc	0.004	0.002

(k) *Alkaline cleaning rinse.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc alkaline cleaned	
Chromium	0.626	0.254
Copper	2.17	1.03
Cyanide	0.338	0.134
Zinc	1.73	0.710

(l) *Sawing or grinding spent emulsions.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc sawed or ground with emulsions	
Chromium	0.009	0.004
Copper	0.031	0.015
Cyanide	0.005	0.002
Zinc	0.025	0.010

(m) *Electrocoating rinse.*

SUBPART H—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc electrocoated	
Chromium	0.085	0.035
Copper	0.293	0.140
Cyanide	0.046	0.019
Zinc	0.234	0.096

(n) *Decreasing spent solvents— Subpart H—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

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

Subpart I—Zirconium-Hafnium Forming Subcategory

§ 471.90 Applicability; description of the zirconium-hafnium 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 zirconium-hafnium forming subcategory.

§ 471.91 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—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.

(b) *Drawing spent lubricants—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.

(c) *Extrusion spend emulsions—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion press hydraulic fluid leakage.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium extruded	
Chromium	0.104	0.043
Cyanide	0.069	0.029
Nickel	0.455	0.301
Ammonia	31.6	13.9
Fluoride	14.1	6.26
Oil and grease	4.74	2.85
TSS	9.72	4.62
pH	(1)	(1)

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

(e) *Swaging spent neat oils—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.

(f) *Heat treatment contact cooling water.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium heat treated	
Chromium	0.151	0.062
Cyanide	0.100	0.041
Nickel	0.659	0.436
Ammonia	45.7	20.1
Fluoride	20.4	9.06
Oil and grease	6.86	4.12
TSS	14.1	6.69
pH	(1)	(1)

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

(g) *Tube Reducing Spent Lubricant—Subpart I—BPT.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under subparagraph (g)(2) of this section shall

be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (g)(2) of this section, the actions described in paragraph (g)(4), of this section shall be taken, and the demonstration required under paragraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(h) *Surface treatment spent baths.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.150	0.61
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20
Fluoride	20.3	8.98
Oil and grease	6.80	4.08
TSS	14	6.63
pH	(1)	(1)

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

(i) *Surface treatment rinse.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirkonium-hafnium surface treated	
Chromium	3.91	1.60
Cyanide	2.58	1.07
Nickel	17.1	11.3
Ammonia	1,190	521
Fluoride	529	235
Oil and grease	178	107
TSS	364	173
pH	(1)	(1)

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

(j) *Alkaline cleaning spent baths.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3
Oil and grease	32	19.2
TSS	65.6	31.2
pH	(1)	(1)

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

(k) *Alkaline cleaning rinse.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	13.8	5.65
Cyanide	9.11	3.77
Nickel	60.3	39.9
Ammonia	4,190	1,840
Fluoride	1,870	829
Oil and grease	628	377
TSS	1,290	613
pH	(1)	(1)

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

(l) *Sawing or grinding spent emulsions.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.5
Fluoride	16.7	7.42
Oil and grease	5.62	3.37
TSS	11.5	5.48
pH	(1)	(1)

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

(m) *Wet air pollution control scrubber blowdown—Subpart I—BPT.* There shall be no allowance for the discharge of process wastewater pollutants.

(n) *Degreasing spent solvents—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.

(o) *Degreasing rinse—Subpart I—BPT.* There shall be no discharge or process wastewater pollutants.

(p) *Molten salt rinse.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthy average
	mg/off-kg (pounds per million off pounds) of zirconium-hafnium treated with molten salt	
Chromium	3.33	1.360
Cyanide	2.20	0.907
Nickel	14.5	9.60
Ammonia	1,010	443
Fluoride	450	200
Oil and grease	151	90.7
TSS	310	148
pH	(1)	(1)

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

(q) *Sawing or grinding contact cooling water.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with contact cooling water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48
Oil and grease	6.42	3.85
TSS	13.2	6.26
pH	(1)	(1)

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

(r) *Sawing on grinding rinse.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground zirconium hafnium rinsed	
Chromium	0.792	0.324
Cyanide	0.522	0.216
Nickel	3.46	2.29
Ammonia	240	106
Fluoride	107	47.5
Oil and grease	36	21.6
TSS	73.8	35.1
pH	(1)	(1)

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

(s) *Sawing or grinding spent neat oils—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.

(t) *Inspection and testing wastewater.*

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium tested	
Chromium	0.007	0.003
Cyanide	0.005	0.002
Nickel	0.030	0.020
Ammonia	2.06	0.903
Fluoride	0.917	0.407
Oil and grease	0.308	0.185
TSS	0.632	0.301
pH	(1)	(1)

[1] Within the range of 7.05 to 10.0 at all times.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986, as amended at 54 FR 11350, Mar. 17, 1989]

§ 471.92 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Rolling spent neat oils—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.

(b) *Drawing spent lubricants—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.

(c) *Extrusion spent emulsions—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion press hydraulic fluid leakage.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds of zirconium-hafnium extruded	
Chromium	0.104	0.043
Cyanide	0.069	0.029
Nickel	0.455	0.301
Ammonia	31.6	13.9
Fluoride	14.1	6.26

(e) *Swaging spent neat oils.*—There shall be no discharge of process wastewater pollutants.

(f) *Heat treatment contact cooling water.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium heat treated	
Chromium	0.015	0.006
Cyanide	0.010	0.004
Nickel	0.066	0.044
Ammonia	4.57	2.01
Fluoride	2.04	0.906

(g) *Tube Reducing Spent Lubricant*—Subpart I—BAT.

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under paragraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (g)(2) of

this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(h) *Surface treatment spent baths.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20
Fluoride	20.3	8.98

(i) *Surface treatment rinse.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.391	0.160
Cyanide	0.258	0.107
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5

(j) *Alkaline cleaning spent baths.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3

(k) *Alkaline cleaning rinse.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	1.380	0.565
Cyanide	0.911	0.377
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9

(l) *Sawing or grinding spent emulsions.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.5
Fluoride	16.7	7.42

(m) *Wet air pollution control scrubber blowdown—Subpart I—BAT.* There shall

be no allowance for the discharge of process wastewater pollutants.

(n) *Degreasing spent solvents—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.

(o) *Degreasing rinse—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.

(p) *Molten salt rinse.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium treated with molten salt	
Chromium	0.333	0.136
Cyanide	0.220	0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45.0	20.0

(q) *Sawing or grinding contact cooling water.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with contact cooling water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48

(r) *Sawing or grinding rinse.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground zirconium-hafnium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24.0	10.6
Fluoride	10.7	4.75

(s) *Sawing or grinding spent neat oils—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.

(t) *Inspection and testing wastewater.*

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium tested	
Chromium	0.007	0.003
Cyanide	0.005	0.002
Nickel	0.030	0.020
Ammonia	2.06	0.903
Fluoride	0.917	0.407

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986, as amended at 54 FR 11351, Mar. 17, 1989]

§ 471.93 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutant in the zirconium-hafnium process wastewater shall not exceed the following values:

(a) *Rolling spent neat oils—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants.

(b) *Drawing spent lubricants—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants.

(c) *Extrusion spent emulsions—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion press hydraulic fluid leakage.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium extruded	
Chromium	0.104	0.043
Cyanide	0.069	0.029
Nickel	0.455	0.301
Ammonia	31.6	13.9
Fluoride	14.1	6.26
Oil and grease	4.74	2.85
TSS	9.72	4.62
pH	(1)	(1)

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

(e) *Swaging spent neat oils—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants.

(f) *Heat treatment contact cooling water.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium heat treated	
Chromium	0.015	0.006
Cyanide	0.010	0.004
Nickel	0.066	0.044
Ammonia	4.57	2.01
Fluoride	2.04	0.906
Oil and grease	0.686	0.412
TSS	1.41	0.669
pH	(1)	(1)

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

(g) *Tube Reducing Spent Lubricant—Subpart I—NSPS:*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under paragraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(h) *Surface treatment spent baths.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20.0
Fluoride	20.0	8.98
Oil and grease	6.80	4.08
TSS	14.0	6.63
pH	(1)	(1)

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

(i) *Surface treatment rinse.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.391	0.160
Cyanide	0.258	0.107
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5
Oil and grease	17.8	10.7
TSS	36.4	17.3
pH	(1)	(1)

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

(j) *Alkaline cleaning spent baths.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3
Oil and grease	32.0	19.2
TSS	65.6	31.2
pH	(1)	(1)

[1] Within the range of 7.5 to 10.0 at all times

(k) *Alkaline cleaning rinse.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	1.38	0.565
Cyanide	0.911	0.377
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9
Oil and grease	62.8	37.7
TSS	129	61.3
pH	(1)	(1)

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

(l) *Sawing or grinding spent emulsions.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.50
Fluoride	16.7	7.42
Oil and grease	5.62	3.37
TSS	11.5	5.48
pH	(1)	(1)

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

(m) *Wet air pollution control scrubber blowdown—Subpart I—NSPS.* There shall be no allowance for the discharge of process wastewater pollutants.

(n) *Degreasing spent solvents—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants.

(o) *Degreasing rinse—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants

(p) *Molten salt rinse.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium treated with molten salt	
Chromium	0.333	0.136
Cyanide	0.220	0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45.0	20.0
Oil and grease	15.1	9.07
TSS	31.0	14.8
pH	(1)	(1)

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

(q) *Sawing or grinding contact cooling water.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with contact cooling water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48
Oil and grease	6.42	3.85
TSS	13.2	6.26
pH	(1)	(1)

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

(r) *Sawing or grinding rinse.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground zirconium-hafnium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24.0	10.6
Fluoride	10.7	4.75
Oil and Grease	3.60	2.16
TSS	7.38	3.51
pH	(1)	(1)

[1] Within range of 7.5 to 10.0 at all times.

(s) *Sawing or grinding spent neat oils—Subpart I—NSPS.* There shall be no discharge or process wastewater pollutants.

(t) *Inspection and testing wastewater.*

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium tested	
Chromium	0.007	0.003
Cyanide	0.005	0.002
Nickel	0.030	0.020
Ammonia	2.06	0.903
Fluoride	0.917	0.407
Oil and grease	0.308	0.185
TSS	0.632	0.301
pH	(1)	(1)

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

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986, as amended at 54 FR 11351, Mar. 17, 1989]

§ 471.94 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, 1988 achieve the following preteatment standards for existing sources (PSES). The mass of wastewater pollutants in zirconium-hafnium forming process wastewater introduced into a POTW shall not exceed the following values:

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

(b) *Drawing spent lubricants—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.

(c) *Extrusion spent emulsion—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion press hydraulic fluid leakage.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium extruded	
Chromium	0.104	0.043
Cyanide	0.069	0.029
Nickel	0.455	0.301
Ammonia	31.6	13.9
Fluoride	14.1	6.26

(e) *Swaging spent neat oils—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.

(f) *Heat treatment contact cooling water.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium heat treated	
Chromium	0.015	0.006
Cyanide	0.010	0.004
Nickel	0.066	0.044
Ammonia	4.57	2.01
Fluoride	2.04	0.906

(g) *Tube Reducing Spent Lubricant—Subpart I—PSES.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under paragraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under subparagraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(h) *Surface treatment spent baths.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20.0
Fluoride	20.0	8.98

(i) *Surface treatment rinse.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.391	0.160
Cyanide	0.258	0.107
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5

(j) *Alkaline cleaning spent baths.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3

(k) *Alkaline cleaning rinse.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	1.38	0.565
Cyanide	0.911	0.377
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9

(l) *Sawing or grinding spent emulsions.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.50
Fluoride	16.7	7.42

(m) *Wet air pollution control scrubber blowdown—Subpart I—PSES.* There shall be no allowance for the discharge or process wastewater pollutants.

(n) *Degreasing spent solvents—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.

(o) *Degreasing rinse—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.

(p) *Molten salt rinse.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium treated with molten salt	
Chromium	0.333	0.136
Cyanide	0.220	0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45	20

(q) *Sawing or grinding contact cooling water.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with contact cooling water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48

(r) *Sawing or grinding rinse.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground zirconium-hafnium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24	10.6
Fluoride	10.7	4.75

(s) *Sawing or grinding spent neat oils—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.

(t) *Inspection and testing wastewater.*

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium tested	
Chromium	0.007	0.003
Cyanide	0.005	0.002
Nickel	0.030	0.020
Ammonia	2.06	0.903
Fluoride	0.917	0.407

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of zirconium-hafnium heat treated	
Chromium	0.015	0.006
Cyanide	0.010	0.004
Nickel	0.066	0.044
Ammonia	4.57	2.01
Fluoride	2.04	0.906

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986, as amended at 54 FR 11352, Mar. 17, 1989]

§ 471.95 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 standards for new sources (PSNS). The mass of wastewater shall not exceed the following:

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

(b) *Drawing spent lubricants—Subpart I—PSNS.* There shall be no discharge of process wastewater pollutants.

(c) *Extrusion spent emulsions—Subpart I—PSNS.* There shall be no discharge of process wastewater pollutants.

(d) *Extrusion press hydraulic fluid leakage.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium extruded	
Chromium	0.104	0.043
Cyanide	0.069	0.029
Nickel	0.455	0.301
Ammonia	31.6	13.9
Fluoride	14.1	6.26

(e) *Swaging spent neat oils—Subpart I—PSNS.* There shall be no discharge of process wastewater pollutants.

(f) *Heat treatment contact cooling water.*

(g) *Tube Reducing Spent Lubricant—Subpart I—PSNS.*

(1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.

(2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed0 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

(3) The demonstration required under subparagraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under paragraph (g)(2) shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

(4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (g)(2) of this section, the facility owner or

operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:

(i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or

(ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or

(iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.

(5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

(i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(h) *Surface treatment spent baths.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20
Fluoride	20	8.98

(i) *Surface treatment rinse.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of zirconium-hafnium surface treated	
Chromium	0.391	0.160
Cyanide	0.258	0.107
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5

(j) *Alkaline cleaning spent baths.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3

(k) *Alkaline cleaning rinse.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium alkaline cleaned	
Chromium	1.38	0.565
Cyanide	0.911	0.377
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9

(l) *Sawing or grinding spent emulsions.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.50
Fluoride	16.7	7.42

(m) *Wet air pollution control scrubber blowdown—Subpart I—PSNS.* There

shall be no allowance for the discharge of process wastewater pollutants.

(n) *Degreasing spent solvents—Subpart I—PSNS.* There shall be no discharge of process wastewater pollutants.

(o) *Degreasing rinse—Subpart I—PSNS.* There shall be no discharge of process wastewater pollutants.

(p) *Molten salt rinse.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium rinsed following molten salt treatment	
Chromium	0.333	0.136
Cyanide	0.220	0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45.0	20.0

(q) *Sawing or grinding contact cooling water.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium sawed or ground with contact cooling water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48

(r) *Sawing or grinding rinse.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of sawed or ground zirconium-hafnium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24.0	10.6
Fluoride	10.7	4.75

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

(t) *Inspection and testing wastewater.*

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium tested	
Chromium	0.007	0.003
Cyanide	0.005	0.002
Nickel	0.030	0.020
Ammonia	2.06	0.903
Fluoride	0.917	0.407

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986, as amended at 54 FR 11352, Mar. 17, 1989]

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

Subpart J—Metals Powders Subcategory

§ 471.100 Applicability; description of the powder metals 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 metal powders subcategory.

§ 471.101 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) *Metal powder production atomization wastewater.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder wet atomized	
Copper	9.58	5.04
Cyanide	1.46	0.605
Lead	2.12	1.01
Oil and grease	101	60.5
TSS	207	98.3
pH	(1)	(1)

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

(b) *Sizing spent emulsion.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sized	
Copper	0.028	0.015
Cyanide	0.004	0.002
Lead	0.006	0.003
Oil and grease	0.292	0.175
TSS	0.599	0.285
pH	(1)	(1)

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

(c) *Oil-resin impregnation wastewater—Subpart J—BPT.* There shall be no discharge of process wastewater pollutants.

(d) *Steam treatment wet air pollution control scrubber blowdown.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of power metallurgy parts steam treated	
Copper	1.51	0.792
Cyanide	0.230	0.095
Lead	0.333	0.159
Oil and grease	15.9	9.51
TSS	32.5	15.5
pH	(1)	(1)

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

(e) *Tumbling, burnishing and cleaning wastewater.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts tumbled, burnished, or cleaned	
Copper	8.36	4.40
Cyanide	1.28	0.528
Lead	1.85	0.880
Oil and grease	88.0	52.800
TSS	181	85.8
pH	(1)	(1)

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

(f) *Sawing or grinding spent neat oils.—Subpart J—BPT.* There shall be no discharge of process wastewater pollutants.

(g) *Sawing or grinding spent emulsion.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with emulsion	
Copper	0.035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004
Oil and grease	0.362	0.217
TSS	0.742	0.353
pH	(1)	(1)

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

(h) *Sawing or grinding contact cooling water.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with contact cooling	
Copper	3.08	1.62
Cyanide	0.470	0.195
Lead	0.681	0.324
Oil and grease	32.4	19.5
TSS	66.4	31.6
pH	(1)	(1)

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

(i) *Hot pressing contact cooling water.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder cooled after pressing	
Copper	16.7	8.80
Cyanide	2.55	1.06
Lead	3.70	1.76
Oil and grease	176	106
TSS	361	172
pH	(1)	(1)

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

(j) *Mixing wet air pollution control scrubber blowdown.*

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder mixed	
Copper	15.0	7.90
Cyanide	2.29	0.948
Lead	3.32	1.58
Oil and grease	158	94.8
TSS	324	154
pH	(1)	(1)

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

(k) *Degreasing spent solvents.—Subpart J—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§ 471.102 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

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 available technology economically achievable (BAT):

(a) *Metal powder production atomization wastewater.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder wet atomized	
Copper	9.58	5.04
Cyanide	1.46	0.605
Lead	2.12	1.01

(b) *Sizing spent emulsions.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) or powder sized	
Copper	0.028	0.015
Cyanide	0.004	0.002
Lead	0.006	0.003

(c) *Oil-resin impregnation wastewater—Subpart J—BAT.* There shall be no discharge of process wastewater pollutants.

(d) *Steam treatment wet air pollution control scrubber blowdown.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts steam treated	
Copper	1.51	0.792
Cyanide	0.230	0.095
Lead	0.333	0.159

(e) *Tumbling, burnishing and cleaning wastewater.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) or powder metallurgy parts tumbled, burnished, or cleaned	
Copper	8.36	4.40
Cyanide	1.28	0.528
Lead	1.850	0.880

(f) *Sawing or grinding spent neat oils. Subpart J—BAT.* There shall be no discharge of process wastewater pollutants.

(g) *Sawing or grinding spent emulsions.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with emulsions	
Copper	0.0035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004

(h) *Sawing or grinding contact cooling water.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sawed or ground with contact cooling	
Copper	3.08	1.62
Cyanide	0.470	0.195
Lead	0.681	0.324

(i) *Hot pressing contact cooling water.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder cooled after pressing	
Copper	16.7	8.80
Cyanide	2.55	1.06
Lead	3.70	1.760

(j) *Mixing wet air pollution control scrubber blowdown.*

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder mixed	
Copper	15.0	7.90
Cyanide	2.29	0.948
Lead	3.32	1.58

(k) *Degreasing spent solvents—Subpart J—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§ 471.103 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutants in the metal powder process wastewater shall not exceed the following values:

(a) *Metal powder production atomization wastewater.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder wet atomized	
Copper	9.58	5.04
Cyanide	1.46	0.605
Lead	2.12	1.01
Oil and grease	101	60.5
TSS	207	98.3
pH	[1]	[1]

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

(b) *Sizing spent emulsions.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sized	
Copper	0.028	0.015
Cyanide	0.004	0.002
Lead	0.006	0.003
Oil and grease	0.292	0.175
TSS	0.599	0.285
pH	[1]	[1]

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

(c) *Oil-resin impregnation wastewater.—Subpart J—NSPS.* There shall be no discharge of process wastewater pollutants.

(d) *Steam treatment wet air pollution control scrubber blowdown.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts steam treated	
Copper	0.151	0.079
Cyanide	0.023	0.010
Lead	0.033	0.016
Oil and grease	1.59	0.951
TSS	3.25	1.55
pH	(1)	(1)

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

(e) *Tumbling, burnishing and cleaning wastewater.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts tumbled, burnished, or cleaned	
Copper	0.836	0.440
Cyanide	0.128	0.053
Lead	0.185	0.088
Oil and grease	8.80	5.28
TSS	18.1	8.58
pH	(1)	(1)

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

(f) *Sawing or grinding spent neat oils.—Subpart J—NSPS.* There shall be no discharge of process wastewater pollutants.

(g) *Sawing or grinding spent emulsions.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with emulsions	
Copper	0.035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004
Oil and grease	0.362	0.217
TSS	0.742	0.353
pH	(1)	(1)

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

(h) *Sawing or grinding contact cooling waterr.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sawed or ground with contact cooling water	
Copper	3.08	1.62
Cyanide	0.470	0.195
Lead	0.681	0.324
Oil and grease	32.4	19.5
TSS	66.4	31.6
pH	(1)	(1)

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

(i) *Hot pressing contact cooling water.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder cooled after pressing	
Copper	1.67	0.880
Cyanide	0.255	0.106
Lead	0.370	0.176
Oil and grease	17.6	10.6
TSS	36.1	17.2
pH	(1)	(1)

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

(j) *Mixing wet air pollution control scrubber blowdown.*

SUBPART J—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder mixed	
Copper	15.0	7.90
Cyanide	2.29	0.948
Lead	3.32	1.58
Oil and grease	158	94.8
TSS	324	154
pH	(1)	(1)

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

(k) *Degreasing spent solvents.—Subpart J—NSPS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§ 471.104 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, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in metal powders process wastewater introduced into a POTW shall not exceed the following values:

(a) *Metal powder production atomization wastewater.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder wet atomized	
Copper	9.58	5.040
Cyanide	1.46	0.605
Lead	2.12	1.01

(b) *Sizing spent emulsions.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sized	
Copper	0.028	0.015
Cyanide	0.004	0.002
Lead	0.006	0.003

(c) *Oil-resin impregnation wastewater.—Subpart J—PSES.*

(d) *Steam treatment wet air pollution control scrubber blowdown.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy part steam treated	
Copper	1.51	0.792
Cyanide	0.230	0.095
Lead	0.333	0.159

(e) *Tumbling, burnishing and cleaning wastewater.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts tumbled, burnished, or cleaned	
Copper	8.36	4.40
Cyanide	1.28	0.528
Lead	1.85	0.880

(f) *Sawing or grinding spent neat oils.—Subpart J—PSES.* There shall be no discharge of process watewater pollutants.

(g) *Sawing or grinding spent emulsions.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with emulsions	
Copper	0.035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004

(h) *Sawing or grinding contact cooling water.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sawed or ground with contact cooling water	
Copper	3.08	1.62
Cyanide	0.470	0.195
Lead	0.681	0.324

(i) *Hot pressing contact cooling water.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder cooled after pressing	
Copper	16.7	8.80
Cyanide	2.55	1.06
Lead	3.70	1.76

(j) *Mixing wet air pollution control scrubber blowdown.*

SUBPART J—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder mixed	
Copper	15.0	7.90
Cyanide	2.29	0.948
Lead	3.32	1.58

(k) *Degreasing spent solvents—Subpart J—PSES.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§ 471.105 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subject 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 metal powders process wastewater introduced into a POTW shall not exceed the following values:

(a) *Metal powder production atomization wastewater.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder wet atomized	
Copper	9.58	5.04
Cyanide	1.46	0.605
Lead	2.12	1.01

(b) *Sizing spent emulsions.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sized	
Copper	0.028	0.015
Cyanide	0.004	0.002
Lead	0.006	0.003

(c) *Oil-resin impregnation wastewater—Subpart J—PSNS.* There shall be no discharge of process wastewater pollutants.

(d) *Steam treatment wet air pollution control scrubber blowdown.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts steam treated	
Copper	0.151	0.079
Cyanide	0.023	0.010
Lead	0.033	0.016

(e) *Tumbling, burnishing and cleaning wastewater.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts tumbled, burnished, or cleaned	
Copper	0.836	0.440
Cyanide	0.128	0.053
Lead	0.185	0.088

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

(g) *Sawing or grinding spent emulsions.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with emulsions	
Copper	0.035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004

(h) *Sawing or grinding contact cooling water.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sawed or ground with contact cooling water	
Copper	3.08	1.620
Cyanide	0.470	0.195
Lead	0.681	0.324

(i) *Hot pressing contact cooling water.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder cooled after pressing	
Copper	1.67	0.880
Cyanide	0.255	0.106
Lead	0.370	0.176

(j) *Mixing wet air pollution control scrubber blowdown.*

SUBPART J—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder mixed	
Copper	15.0	7.90
Cyanide	2.29	0.948
Lead	3.32	1.58

(k) *Degreasing spent solvents—Subpart J—PSNS.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

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

Subpart H—Zinc Forming Subcategory

Subpart I—Zirconium-Hafnium Forming Subcategory

Subpart J—Metal Powders Subcategory

AUTHORITY: Secs. 301, 304(b), (c), (e), and (g), 306(b) and (c), 307, 308, 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), and 1361; 86 Stat. 816, Pub. L. 92–500; 91 Stat. 1567, Pub. L. 95–217.

SOURCE: 50 FR 34270, Aug. 23, 1985, unless otherwise noted.

GENERAL PROVISIONS

§ 471.01 Applicability.

(a) This part applies to discharges of pollutants to waters of the United States and introduction of pollutants into a publicly owned treatment works from the forming of nonferrous metals (including nonferrous metal alloys), except beryllium, copper, and aluminum and their alloys. Aluminum alloys are defined as any alloy in which aluminum is the major constituent in percent by weight. Copper alloys are defined as any alloy in which copper is the major constituent in percent by weight except when copper is alloyed with precious metals. Any copper-precious metal alloy containing 30 percent or greater precious metal is considered a precious metal alloy for the purposes of this part. Beryllium alloys are any alloy in which beryllium is present at 0.1 percent or greater. This part applies to:

(1) Forming operations, including rolling (both hot and cold), extruding,

forging, drawing, swaging, cladding, and tube reducing, and

(2) Ancillary operations performed as an integral part of the forming of these metals, including casting for subsequent forming, heat treatment, surface treatment, alkaline cleaning, solvent degreasing, product testing, surface coating, sawing, grinding, tumbling, burnishing, and wet air pollution control.

(b) This part also applies to discharges of pollutants to waters of the United States and introduction of pollutants into a publicly owned treatment works from mechanical metal powder production operations, forming of parts from metal powders, and associated ancillary operations (listed in paragraph (a)(2) of this section) of:

(1) Iron, copper, and aluminum, and their alloys; and

(2) The nonferrous metals and their alloys described in paragraph (a) of this section. This part does not regulate the production of metal powders by chemical means such as precipitation. The production of metal powder as the final step in refining metal is regulated under the Nonferrous Metals Manufacturing Point Source Category regulation, 40 CFR part 421.

(c) Surface treatment includes any chemical or electrochemical treatment applied to the surface of the metal. For the purposes of this regulation, surface treatment of metals is considered to be an integral part of the forming of metals whenever it is performed at the same plant site at which the metals are formed. Such surface treatment operations are not regulated under the Electroplating or Metal Finishing Point Source Category regulations, 40 CFR part 413 or 433, respectively.

(d) Casting is covered by this part when it is performed as an integral part of the metal forming process and takes place at the same plant site at which metals are formed. Such casting will not be regulated under the provisions of Metal Molding and Casting Point Source Category regulations, 40 CFR part 464.

(e) This part does not apply to the forming of the metals cadmium, chromium, gallium, germanium, indium, lithium, manganese, neodymium, or praseodymium.

§ 471.02 General definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) ''Nonferrous metal'' is any pure metal other than iron or any metal alloy for which a metal other than iron is its major constituent in percent by weight.

(b) ''Forming'' is a set of manufacturing operations in which metals and alloys are made into semifinished products by hot or cold working.

(c) ''Alkaline cleaning'' uses a solution (bath), usually detergent, to remove lard, oil, and other such compounds from a metal surface. Alkaline cleaning is usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, an alkaline cleaning operation is defined as a bath followed by a rinse, regardless of the number of rinse stages. Each alkaline cleaning bath and rinse combination is entitled to a discharge allowance.

(d) ''Atomization'' is the process in which a stream of water or gas impinges upon a molten metal stream, breaking it into droplets which solidify as powder particles.

(e) ''Burnishing'' is a surface finishing process in which minute surface irregularities are displaced rather than removed.

(f) ''Casting'' is pouring molten metal into a mold to produce an object of desired shape.

(g) ''Cladding'' or ''metal cladding'' is the art of producing a composite metal containing two or more layers that have been metallurgically bonded together by roll bonding (co-rolling), solder application (or brazing), or explosion bonding.

(h) ''Contact cooling water'' is any wastewater which contacts the metal workpiece or the raw materials used in forming metals for the purpose of removing heat from the metal.

(i) ''Continuous casting'' is the production of sheet, rod, or other long shapes by solidifying the metal while it is being poured through an open-ended mold.

(j) ''Degreasing'' is the removal of oils and greases from the surface of the metal workpiece. This process can be

accomplished with detergents as in alkaline cleaning or by the use of solvents.

(k) ''Direct chill casting'' is the pouring of molten nonferrous metal into a water-cooled mold. Contact cooling water is sprayed onto the metal as it is dropped into the mold, and the metal ingot falls into a water bath at the end of the casting process.

(l) ''Drawing'' is the process of pulling a metal through a die or succession of dies to reduce the metal's diameter or alter its cross-sectional shape.

(m) ''Dye penetrant testing'' is a nondestructive method for finding discontinuities that are open to the surface of the metal. A dye is applied to the surface of metal and the excess is rinsed off. Dye that penetrates surface discontinuities will not be rinsed away thus marking these discontinuities.

(n) ''Emulsions'' are stable dispersions of two immiscible liquids. In the Nonferrous Metals Forming and Metal Powders Point Source category, this is usually an oil and water mixture.

(o) ''Electrocoating'' is the electrodeposition of a metallic or nonmetallic coating onto the surface of a workpiece.

(p) ''Extrusion'' is the application of pressure to a billet of metal, forcing the metal to flow through a die orifice.

(q) ''Forging'' is deforming metal, usually hot, with compressive force into desired shapes, with or without dies. Where dies are used, the metal is forced to take the shape of the die.

(r) ''Grinding'' is the process of removing stock from a workpiece by the use of a tool consisting of abrasive grains held by a rigid or semi-rigid grinder. Grinding includes surface finishing, sanding, and slicing.

(s) ''Heat treatment'' is the application of heat of specified temperature and duration to change the physical properties of the metal.

(t) ''Hot pressing'' is forming a powder metallurgy compact at a temperature high enough to effect concurrent sintering.

(u) ''Hydrotesting'' is the testing of piping or tubing by filling with water and pressurizing to test for integrity.

(v) ''Impregnation'' is the process of filling pores of a formed powder part, usually with a liquid such as a lubricant, or mixing particles of a nonmetallic substance in a matrix of metal powder.

(w) ''In-process control technology'' is the conservation of chemicals and water throughout the production operations to reduce the amount of wastewater to be discharged.

(x) ''Metal powder production'' operations are mechanical process operations which convert metal to a finely divided form.

(y) ''Milling'' is the mechanical treatment of a nonferrous metal to produce powder, or to coat one component of a powder mixture with another.

(z) ''Neat oil'' is a pure oil with no or few impurities added. In nonferrous metals forming, its use is mostly as a lubricant.

(aa) ''Powder forming'' includes forming and compressing powder into a fully dense finished shape, and is usually done within closed dies.

(bb) ''Precious metals'' include 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 alloy.

(cc) ''Product testing'' includes operations such as dye penetrant testing, hydrotesting, and ultrasonic testing.

(dd) ''Refractory metals'' includes the metals of columbium, tantalum, molybdenum, rhenium, tungsten and vanadium and their alloys.

(ee) ''Rolling'' is the reduction in thickness or diameter of a workpiece by passing it between lubricated steel rollers.

(ff) ''Roll bonding'' is the process by which a permanent bond is created between two metals by rolling under high pressure in a bonding mill (co-rolling).

(gg) ''Sawing'' is cutting a workpiece with a band, blade, or circular disc having teeth.

(hh) ''Shot casting'' is the production of shot by pouring molten metal in finely divided streams to form spherical particles.

(ii) ''Stationary casting'' is the pouring of molten metal into molds and allowing the metal to cool.

(jj) ''Surface treatment'' is a chemical or electrochemical treatment applied to the surface of a metal. Such treatments include pickling, etching,

conversion coating, phosphating, and chromating. Surface treatment baths are usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, a surface treatment operation is defined as a bath followed by a rinse, regardless of the number of stages. Each surface treatment bath, rinse combination is entitled to discharge allowance.

(kk) ''Swaging'' is a process in which a solid point is formed at the end of a tube, rod, or bar by the repeated blows of one or more pairs of opposing dies.

(ll) ''Tube reducing'' is an operation which reduces the diameter and wall thickness of tubing with a mandrel and a pair of rolls with tapered grooves.

(mm) ''Tumbling'' or ''barrel finishing'' is an operation in which castings, forgings, or parts pressed from metal powder are rotated in a barrel with ceramic or metal slugs or abrasives to remove scale, fins, or burrs. It may be done dry or with an aqueous solution.

(nn) ''Ultrasonic testing'' is a nondestructive test which applies sound, at a frequency above about 20 HJz, to metal, which has been immersed in liquid (usually water) to locate inhomogeneities or structural discontinuities.

(oo) ''Wet air pollution control scrubbers'' are air pollution control devices used to remove particulates and fumes from air by entraining the pollutants in a water spray.

(pp) ''Grab sample'' is a single sample which is collected at a time and place most representative of total discharge.

(qq) ''Composite sample'' is a sample composed of no less than eight grab samples taken over the compositing period.

(rr) A ''flow proportional composite sample'' is composed of grab samples collected continuously or discretely in proportion to the total flow at time of collection or to the total flow since collection of the previous grab sample. The grab volume or frequency of grab collection may be varied in proportion to flow.

(ss) The term ''control authority'' is defined as the POTW if it has an approved pretreatment program; in the absence of such a program, the NPDES State if it has an approved pretreatment program or EPA if the State does not have an approved program.

(tt) ''Continuous operations'' means that the industrial user introduces regulated wastewaters to the POTW throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

(uu) ''Intermittent operations'' means the industrial users does not have a continuous operation.

(vv) The term ''off-kg (off-lb)'' means the mass of metal or metal alloy removed from a forming operation at the end of a process cycle for transfer to a different machine or process.

§ 471.03 Compliance date for PSES.

The compliance date for PSES under this regulation is August 23, 1988.

Subpart A—Lead-Tin-Bismuth Forming Subcategory

§ 471.10 Applicability; description of the lead-tin-bismuth 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 lead-tin-bismuth forming subcategory.

§ 471.11 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 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 emulsions.*