

Environmental Protection Agency

§ 421.336

NSPS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zirconium produced	
Chromium (total)	21.810	8.840
Cyanide (total)	11.790	4.715
Lead	16.500	7.661
Nickel	32.410	21.810
Ammonia (as N)	7,856.000	3,453.000
Total suspended solids	884.000	707.200
pH	(1)	(1)

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

(r) Leaching rinse water from zirconium alloy production.

NSPS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys produced	
Chromium (total)	0.292	0.118
Cyanide (total)	0.158	0.063
Lead	0.221	0.103
Nickel	0.434	0.292
Ammonia (as N)	105.200	46.240
Total suspended solids	11.840	9.468
pH	(1)	(1)

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

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§ 421.336 Pretreatment standards for new sources.

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 primary zirconium and hafnium process wastewater introduced into a POTW shall not exceed the following values:

(a) Sand drying wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	0.210	0.085
Cyanide (total)	0.114	0.045
Lead	0.159	0.074
Nickel	0.312	0.210
Ammonia (as N)	75.710	33.280

(b) Sand chlorination off-gas wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	16.080	6.521
Cyanide (total)	8.690	3.478
Lead	12.170	5.651
Nickel	23.910	16.080
Ammonia (as N)	5,795.000	2,547.000

(c) Sand chlorination area vent wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	3.154	1.279
Cyanide (total)	1.705	0.682
Lead	2.387	1.108
Nickel	4.688	3.154
Ammonia (as N)	1,136.000	499.500

(d) SiCl₄ purification wet air pollution control.

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PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	2.774	1.125
Cyanide (total)	1.500	0.600
Lead	2.099	0.975
Nickel	4.124	2.774
Ammonia (as N)	999.500	439.400

(e) Feed makeup wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	2.103	0.852
Cyanide (total)	1.137	0.455
Lead	1.591	0.739
Nickel	3.126	2.103
Ammonia (as N)	757.500	333.000

(f) Iron extraction (MIBK) steam stripper bottoms.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	0.830	0.337
Cyanide (total)	0.449	0.180
Lead	0.628	0.292
Nickel	1.234	0.830
Ammonia (as N)	299.100	131.500

(g) Zirconium filtrate.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	14.350	5.819
Cyanide (total)	7.758	3.103
Lead	10.860	5.043
Nickel	21.340	14.350
Ammonia (as N)	5,171.000	2,273.000

(h) Hafnium filtrate.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	0.000	0.000
Cyanide (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Ammonia (as N)	0.000	0.000

(i) Calcining caustic wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium dioxide and hafnium dioxide produced	
Chromium (total)	3.329	1.350
Cyanide (total)	1.799	0.720
Lead	2.519	1.170
Nickel	4.948	3.329
Ammonia (as N)	1,199.000	527.200

(j) Pure chlorination wet air pollution control.

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PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	14.180	5.748
Cyanide (total)	7.663	3.065
Lead	10.730	4.981
Nickel	21.007	14.180
Ammonia (as N)	5,108.000	2,245,000

(k) Reduction area-vent wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of Zirconium and hafnium produced	
Chromium (total)	1.364	0.553
Cyanide (total)	0.737	0.295
Lead	1.032	0.479
Nickel	2.027	1.364
Ammonia (as N)	491.300	216.000

(l) Magnesium recovery off-gas wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	7.671	3.110
Cyanide (total)	4.147	1.659
Lead	5.805	2.695
Nickel	11.400	7.671
Ammonia (as N)	2,764.000	1,215.000

(m) Magnesium recovery area-vent wet air pollution control.

PSNS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	4.262	1.728

PSNS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Cyanide (total)	2.304	0.921
Lead	3.225	1.497
Nickel	6.335	4.262
Ammonia (as N)	1,535,000	675.00

(n) Zirconium chip crushing wet air pollution control.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

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	mg/kg (pounds per million pounds) of zirconium and hafnium produced	
Chromium (total)	0.000	0.000
Cyanide (total)	0.000	0.000
Lead	0.000	0.000
Nickel	0.000	0.000
Ammonia (as N)	0.000	0.000

(o) Acid leachate from zirconium metal production.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of pure zirconium produced	
Chromium (total)	10.900	4.420
Cyanide (total)	5.893	2.357
Lead	8.250	3.831
Nickel	16.210	10.900
Ammonia (as N)	3,928.000	1,674.00

(p) Acid leachate from zirconium alloy production.

PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of zirconium contained in alloys produced	
Chromium (total)	5.835	2.366
Cyanide (total)	3.154	1.262
Lead	4.416	2.050
Nickel	8.674	5.835

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PSNS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY—Continued

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Ammonia (as N)	2,102.000	895.800

(q) Leaching rinse water from zirconium metal production.

PSNS LIMITATIONS FOR THE PRIMARY ZIRCONIUM AND HAFNIUM SUBCATEGORY

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	mg/kg (pounds per million pounds) of pure zirconium produced	
Chromium (total)	21.810	8.840
Cyanide (total)	11.790	4.715
Lead	16.500	7.661
Nickel	32.410	21.810
Ammonia (as N)	7,856.000	3,453.000

(r) Leaching rinse water from zirconium alloy production.

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Chromium (total)	0.292	0.118
Cyanide (total)	0.158	0.063
Lead	0.221	0.103
Nickel	0.434	0.292
Ammonia (as N)	105.200	46.240

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PART 422—PHOSPHATE MANUFACTURING POINT SOURCE CATEGORY

Subpart A—Phosphorus Production Subcategory

Sec.

422.10 Applicability; description of the phosphorus production subcategory.

Subpart B—Phosphorus Consuming Subcategory

422.20 Applicability; description of the phosphorus consuming subcategory.

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Subpart C—Phosphate Subcategory

422.30 Applicability; description of the phosphate subcategory.

Subpart D—Defluorinated Phosphate Rock Subcategory

422.40 Applicability; description of the defluorinated phosphate rock subcategory.

422.41 Specialized definitions.

422.42 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

422.43 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

422.44 [Reserved]

422.45 Standards of performance for new sources.

422.46 [Reserved]

422.47 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

Subpart E—Defluorinated Phosphoric Acid Subcategory

422.50 Applicability; description of the defluorinated phosphoric acid subcategory.

422.51 Specialized definitions.

422.52 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

422.53 Effluent limitations and guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

422.54 [Reserved]

422.55 Standards of performance for new sources.

422.56 [Reserved]

422.57 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology.

Subpart F—Sodium Phosphates Subcategory

422.60 Applicability; description of the sodium phosphates subcategory.

422.61 Specialized definitions.