Remediation General Permit
Appendix IV

Chloride & Total Recoverable Metals Limitations (ug/L) at Selected Dilution Ranges & Technology-Based Ceiling Limitations for Facilities Located in Massachusetts and New Hampshire

For Facilities Located in Massachusetts (for discharges to freshwater at Hardness = 50 mg/L CaCO3)[1]

Parameter	Chloride & Total Recoverable Metal Limitations (ug/l) by Dilution Factor Range					
	1 – 5 [6]	>5 - 10	>10 - 50	>50 - 100	>100	Ceiling Value [2]
38. Chloride	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
39. Antimony	5.6	30	60	141	141	141 [3]
40. Arsenic	10	50	100	500	540	540 [4]
41. Cadmium	0.2	1	2	10	20	260
42. ChromiumIII (Trivalent)	48.8	244	489	1,710	1,710	1,710
43. ChromiumVI (Hexavalent)	11.4	57	114	570	1,140	1,710 [5]
44. Copper	5.2	26	52	260	520	2,070
45. Lead	1.3	6.5	13	66	132	430
46. Mercury	0.9	2.3	2.3	2.3	2.3	2.3 [3]
47. Nickel	29	145	290	1,451	2,380	2,380
48. Selenium	5	25	50	250	408	408 [3]
49. Silver	1.2	6	12	57	115	240
50. Zinc	66.6	333	666	1,480	1,480	1,480
51. Iron	1,000	5,000	5,000	5,000	5,000	5,000

Footnotes for Massachusetts:

1. Based on 7Q10 Flow.
2. The Ceiling Value for Cadmium, Chromium, Copper, Lead, Nickel, Silver, and Zinc is a Technology Based Value and represents the "Best Available Control Technology" (BAT) for the Metal Finishing Industry, 40 CFR Section 433.14 (monthly average concentration).
3. Based on 40 CFR 437.42, "The Centralized Waste Treatment Point Source Category - Subpart D - Multiple Wastestreams Best Practicable Control Technology" (BPT) daily maximum.
4. Based on 40 CFR 445.11, "RCRA Subtitle C Landfill Best Practicable Control Technology" (BPT) for Arsenic.
5. Assumes Hexavalent Chromium reduced to Tri-valent Chromium in treatment.
6. For a Dilution Factor Range from 1 to 5, metals limits are calculated using DF times the base limit for the metal. For example, iron limits for DF 1-5 are equal to the base limit of 1,000 ug/L times the DF. For example, if DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.

For Facilities Located in New Hampshire (for discharges to freshwater at Hardness = 25 mg/L CaCO3)[1]

Parameter	Chloride & Total Recoverable Metal Limitations (ug/l) by Dilution Factor Range					
	1 – 5 [6]	>5 - 10	>10 - 50	>50 - 100	>100	Ceiling Value [2]
38. Chloride [7]	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
39. Antimony	5.6	30	60	141	141	141 [3]
40. Arsenic	10	50	100	500	540	540 [4]
41. Cadmium	0.8	4	8	16	32	260
42. ChromiumIII (Trivalent)	27.7	138	277	1,385	1,710	1,710
43. ChromiumVI (Hexavalent)	11.4	57	114	570	1,140	1,710 [5]
44. Copper	2.9	14.5	29	142	285	2,070
45. Lead	0.5	2.5	5	27	55	430
46. Mercury	0.9	2.3	2.3	2.3	2.3	2.3 [3]
47. Nickel	16.1	80.5	161	807	1,614	2,380
48. Selenium	5.0	25	50	250	408	408 [3]
49. Silver	0.4	2	4	17	35	240
50. Zinc	37	185	370	1,480	1,480	1,480
51. Iron	1,000	5,000	5,000	5,000	5,000	5,000

Footnotes for New Hampshire:

1. Based on 7Q10 Flow.
2. The Ceiling Value for Cadmium, Chromium, Copper, Lead, Nickel, Silver, and Zinc is a Technology Based Value and represents the "Best Available Control Technology" (BAT) for the Metal Finishing Industry, 40 CFR Section 433.14 (monthly average concentration).
3. Based on 40 CFR 437.42, "The Centralized Waste Treatment Point Source Category - Subpart D - Multiple Wastestreams Best Practicable Control Technology" (BPT) daily maximum.
4. Based on 40 CFR 445.11, "RCRA Subtitle C Landfill Best Practicable Control Technology" (BPT) for Arsenic.
5. Assumes Hexavalent Chromium reduced to Tri-valent Chromium in treatment.
6. For a Dilution Factor Range from 1 to 5, metals limits are calculated using DF times the base limit for the metal. For example, iron limits for 1-5 DF are equal to the base limit of 1,000 ug/L times the DF. For example, if DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = 1,000 x 2 = 2,000 ug/L., etc. not to exceed the DF = 5.
7. Subject additional water quality certification requirements by the State of New Hampshire Department of Environmental Services (NHDES).