

Attachment B

NUMERIC ACTION LEVELS

Constituent	Action Level (Annual average) ¹	Units
Chemical Oxygen Demand (COD)	120	milligrams/liter
Aluminum (Total Recoverable)	0.75	milligrams/liter
Copper (Total Recoverable)	0.0189 ²	milligrams/liter
Iron (Total Recoverable)	1.0	milligrams/liter
Lead (Total Recoverable)	0.122 ²	milligrams/liter
Zinc (Total Recoverable)	0.16 ²	milligrams/liter

ALTERNATE NUMERIC ACTION LEVELS FOR COPPER, LEAD AND ZINC

The U.S. EPA Multi-Sector Industrial Permit sets benchmark values for certain metals based on the water hardness of the receiving water. Three of those metals are included in this permit (copper, lead and zinc). This permit has used a hardness range of 125-150 milligrams/liter as a representative average of the hardness value for the Region’s receiving waters during storm events. This hardness range may not be appropriate for certain receiving water segments. This permit therefore provides the opportunity for dischargers to provide specific receiving water hardness data that can be used to justify alternate numeric action levels for these three metals. There are three methods to determine hardness, including the use of third-party data, grab sampling by a group of dischargers that discharge to the same segment³ of a receiving water, or grab sampling of a receiving water by an individual discharger. Regardless of the method used, the discharger is responsible for documenting the procedures used for determining hardness values. Once a proposed hardness value is established by a discharger, that value and the supporting data must be submitted in the next annual report for approval by regional board staff.

Collection of Third-Party Hardness Data

You can submit receiving stream hardness data collected by a third party provided the results are collected consistent with the approved 40 CFR Part 136 methods. These data may come from a local water utility, previously conducted stream reports, TMDLs, peer reviewed literature, other government publications, or data

¹ Annual average: Arithmetic average of all analytical results obtained during the reporting period (July 1 to June 30).

² Total recoverable copper, lead and zinc numeric action levels are based on an average hardness range of 125-150 mg/liter for the region’s receiving waters during storm event discharge.

³ Receiving water reach delineations are defined in a Region’s Basin Plan

previously collected by the permittee. Data should be less than 10 years old and have been collected for the appropriate stream reach if the Region’s Basin Plan denotes different reach segments for a stream or river.

Group Monitoring for Receiving Water Hardness

You can be part of a group of permittees discharging to the same receiving waters and collect samples that are representative of the hardness values for all members of the group. In this scenario, hardness of the receiving water must be determined using 40 CFR Part 136 procedures and the results shared by group members. To use the same results, hardness measurements must be taken on the same stream reach as the discharge points of each of the group members and within a reasonable distance of those discharge points.

Permittee Samples for Receiving Water Hardness

This method involves collecting samples in the receiving water and submitting these to a laboratory for analysis. If you elect to sample the receiving water(s) for your specific discharge and submit samples for analysis, hardness must be determined from the closest perennial stream downstream of your point of discharge. The sample must be collected during a storm event. Note that collection of in-stream samples during wet weather events may be impracticable or present safety issues. Appropriate caution should be used and permission should be obtained from any landowners or appropriate municipalities or agencies, prior to entry. Hardness must be sampled and analyzed using approved methods as described in 40 CFR Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

**NUMERIC ACTION LEVELS FOR COPPER, LEAD AND ZINC
BASED ON RECEIVING WATER SPECIFIC HARDNESS DATA**

Receiving Water Hardness	Total Recoverable Action Level (Annual Average) in milligram/liter ⁴		
	Copper	Lead	Zinc
0-25 mg/liter	0.0038	0.014	0.04
25-50 mg/liter	0.0056	0.023	0.05
50-75 mg/liter	0.0090	0.045	0.08
75-100 mg/liter	0.0123	0.069	0.11
100-125 mg/liter	0.0156	0.095	0.13
125-150 mg/liter ⁵	0.0189	0.122	0.16
150-175 mg/liter	0.0221	0.151	0.18
175-200 mg/liter	0.0253	0.182	0.20
200-225 mg/liter	0.0285	0.213	0.23
225-250 mg/liter	0.0316	0.246	0.25
250 + mg/liter	0.0332	0.262	0.26

⁴ Annual average: Arithmetic average of all analytical results obtained during the reporting period (July 1 to June 30).

⁵ Default receiving water hardness range.