



Cyanide Site Specific Objectives - Cyanide Action Plan Fact Sheet

Resolution R2-2006-0086 – To amend the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region to adopt Site-Specific Objectives for Cyanide for San Francisco Bay and an Implementation Plan. The Basin Plan requires cyanide source control programs, or “Cyanide Action Plans”, as incorporated into municipal NPDES Permit provisions. Dischargers shall implement monitoring and surveillance, pretreatment, source control and pollution prevention for cyanide in accordance with the following tasks:

Cyanide Action Plan Task	Additional Resource / Reference
<p>Task (1) Review Potential Cyanide Contributors - The Discharger shall submit an inventory of potential contributors of cyanide to the wastewater treatment facility (e.g., metal plating operations, hazardous waste recycling, etc.). If no contributors of cyanide are identified, Tasks 2 and 3 are not required, unless the Discharger receives a request to discharge detectable levels of cyanide to the sanitary sewer. If so, the Discharger shall notify the Executive Officer and implement Tasks (2) and (3).</p> <p>Task (2) Implement Cyanide Control Program The Discharger shall submit a plan for, and begin implementation of, a program to minimize cyanide discharges to the sanitary sewer system consisting, at a minimum, of the following elements: Compliance Date annually with Annual Pollution Prevention Report February 28 or August 31</p> <p>i. Inspect each potential contributor to assess the need to include that contributing source in the control program.</p> <p>ii. Inspect contributing sources included in the control program annually. Inspection elements may be based on USEPA guidance, such as Industrial User Inspection and Sampling Manual for POTWs (EPA 831-B-94-01).</p>	<ul style="list-style-type: none"> • Review POTW Influent Data • Review Pretreatment Program Significant and Categorical Industrial User, and Commercial / Industrial User Inventories • Pretreatment Inspections and regulations cover Action Plan requirements for inspections. • Review sanitary sewer trunk line monitoring data for commercial, industrial, and residential service areas. • BAPPG P2 and the Cyanide SSO Presentation August 2008 by Betsy Elzufon • BAPPG Fact sheet on Approaches to Pollution Prevention for Cyanide – August 2008 • City of San Jose Cyanide Fact Sheet • BAPPG Presentation Cyanide; 6/2/2010 • www.p2rx.org
<p>iii. Develop and distribute educational materials to contributing sources and potential contributing sources regarding the need to prevent cyanide discharges.</p>	<ul style="list-style-type: none"> • Wastewater Discharge Permits • DTSC Fact Sheets January 2002, 1) Jewelry Manufacturing Pollution Prevention Recommendations; and 2) Cyanide Waste Produced in Jewelry Manufacturing
<p>iv. Prepare an emergency monitoring and response plan to be implemented if a significant cyanide discharge occurs.</p> <p>v. If ambient monitoring shows cyanide concentrations of 1.0 µg/L or higher in the main body of San Francisco Bay, undertake actions to identify and abate cyanide sources responsible for the elevated ambient concentrations.</p>	<ul style="list-style-type: none"> • BAPPG Cyanide SSO / Action Plan Fact Sheet with ERP Fact Sheet 6/2/2010. • Regional Monitoring Program (RMP) through BACWA
<p>Task (3) Report Status of Cyanide Control Program Submit a report to the Regional Water Board documenting implementation of the cyanide control program. Compliance Date Annually with P2 reports due February 28 or August 31.</p>	<ul style="list-style-type: none"> • POTW Annual Pollution Prevention Reports



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- The Basin Plan Cyanide Site Specific Objectives require POTWs to prepare an emergency monitoring and response plan that will be implemented if a significant cyanide discharge occurs.
- Purpose is to respond to illicit discharges
- Agencies should refer to their NPDES Permits for specific requirements; this fact sheet presents potential options based on common regional requirements.

Potential Monitoring and Emergency Response Plan Contents

POTW Monitoring:

- POTW influent monitoring, typically per NPDES Permit influent and effluent monitoring requirements.
- Agency should define what a "significant discharge" of cyanide means as it pertains to influent or effluent monitoring data. This could be done by creating performance based limit for cyanide using existing cyanide data.
- When significant discharge occurs take another effluent sample and an influent sample.

Source Monitoring:

- Sanitary sewer surveillance monitoring at a specified frequency for a number of trunkline, commercial, and residential area sites. Agencies determine a representative number of sites and frequency for sampling based on jurisdiction demographics and available resources.
- If any of the sampling results for cyanide are detectable, the POTW will re-sample the same location.
- In addition when cyanide is detected from trunkline, commercial or residential surveillance, the Pretreatment Inspectors will audit the area to determine if there are any potential sources of cyanide. If there are any potential industrial or commercial sources in the area they will be inspected.

Response:

- If POTW monitoring reveals a high value (e.g., exceeds performance based limit), contact all potential cyanide sources and discuss any recent activities that could have caused high value.
- Investigate suspected cyanide dischargers that may have contributed to high value include review of delivery, use, and shipment of cyanide.
- Develop procedures for follow-up sampling and enforcement response if an IU discharges above the applicable Federal categorical limits and/or local limits.
- Ensure procedures are in the Pretreatment Program Enforcement Response Plan and the Pretreatment Sampling Standard Operating Procedure (SOP).
- Report all findings in SMR, or in a letter to Regional Board. Follow up actions, and summarized program results will be reported in the Annual Pollution Prevention Report.



Ambient San Francisco Bay Monitoring

- Cyanide SSO resulted in NPDES Permit language stating:
 “If ambient monitoring shows cyanide concentrations of 1.0 ug/L or higher in the main body of San Francisco Bay, undertake actions to identify and abate cyanide sources responsible for the elevated ambient concentrations.”
- Most agencies are participating in the Regional Monitoring Program (RMP) through BACWA. The RMP has been tasked with sampling the San Francisco Bay for cyanide and compiling the data for BACWA.
- If the RMP ambient monitoring cyanide concentrations are equal to or greater than 1.0 ug/L, agencies will compile and review their effluent cyanide data to determine if the POTW could potentially be a source responsible for the elevated ambient concentrations.
- Agencies will also work through BACWA to undertake actions on a regional level to identify and abate cyanide sources responsible for the elevated ambient concentrations.