PCB Permit Requirements
Kaiser Aluminum

Pat Hallinan
Permit Manager, ERO Water Quality Program
Overview

• EPA Recommendations

• BMP Plan Requirements

• Permit Calculations for PCBs (Interim and Final Limits)
EPA’s Plan for Addressing PCBs in the Spokane River dated July 13, 2015

General and specific recommendations applicable to Kaiser

• 9 regarding permit monitoring, reporting, and BMP plan content
• 2 recommendations for Ecology
EPA Recommendations

• Three (3) monitoring recommendations:
  – Quarterly monitoring using EPA method 1668C
  – Receiving water monitoring upstream and downstream of the discharge
  – Separate monitoring of groundwater remediation discharge
EPA Recommendations

• Three (3) BMP Plan recommendations
  – Should consider the assessment by Task Force of the optimal mix of BMPs applicable to the permitted source
  – Require an update if Ecology determines BMP plan is not reducing PCBs to the ‘maximum extent practicable’
  – Should address water conservation
EPA Recommendations

• Three (3) reporting recommendations
  – Annual report of PCB monitoring results and activities
    • Summary of PCB data
    • Comparison of PCB data over the previous 12 months to older data
    • Estimate of reduction in PCB loading/concentration achieved through BMPs
  • Additional BMPs planned for upcoming year
EPA Recommendations

• Three (3) reporting recommendations
  – Report “dioxin like” congeners
  – Report complete congener analysis as attachments on DMRs
EPA Recommendations

• Two (2) for Ecology
  – Determine if TSS and PCB concentrations are correlated
  – If so, include AKART/performance-based effluent limits for TSS
EPA Recommendations

• Two (2) recommendations for Ecology
  – Determine if TSS and PCB concentrations are correlated
  – If so, include AKART/performance-based effluent limits for TSS
BMP Plan Requirements
**BMP Plan**

- **BMP Plan Goal**

  The goal of the BMP plan is to maintain, or lower, effluent concentrations of total PCBs at or below current discharge levels through the evaluation and implementation of best management practices (BMPs).
**BMP Plan**

- Permit requires specific items
  - Quality Assurance/Quality Control (QA/QC) Plan for PCB Effluent Monitoring
  - PCB Source Identification and Cleanup
  - Influent PCB Design Criteria for Black Walnut Shell Filters
  - PCB Purchasing Standards
  - Site Demolition and Remodeling
BMP Plan

- Permit requires specific items
  - Compliance Schedule for Termination of Groundwater Remediation Flow through Outfall 007
BMP Plan

- BMP Plan can include other items:
  - substitution of materials; reformulation or redesign of products; modification of equipment, facilities, technology, processes, and procedures; and improvement in management, inventory control, materials handling or general operational phases of the facility
BMP Plan

• BMP Plan can include other items:
  – Consider BMPs listed in Comprehensive Plan if applicable to the facility
Permit Calculations for PCBs (Interim and Final Limits)
Why Interim and Final Limits?

• Limits must control pollutants that are discharged at levels which will cause, have the reasonable potential to cause, or contribute to an excursion above water quality standards.

• Permit must include requirements necessary to achieve water quality standards including State narrative criteria for water quality.

• Goal of interim limit to prevent increases in pollutant loadings.
Permit Calculations for Interim Limit

- Looked at effluent data from July 2011 to August 2015
- Twice per month sampling frequency
- Uncorrected data
Prior to September 2013
After September 2013

Constituent: PCBs-mg/day  Analysis Run 8/8/2016 4:21 PM
Kaiser  Client: GOVT. USE ONLY  Data: Kaiser PCBs
Time Series

mg/day

9/4/13  1/24/14  6/16/14  11/6/14  3/29/15  8/19/15

Daily Maximum = 145

Constituent: PCBs-mg/day  Analysis Run 8/8/2016 4:02 PM
Kaiser  Client: GOVT. USE ONLY  Data: Kaiser PCBs
Questions and discussion