

NOV 09 2007

WATER QUALITY PROGRAM

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2 November 2007

Ms. Joyce Smith  
Washington State Department of Ecology  
PO Box 47696  
Olympia, Washington 98504

Subject: Level Two (Turbidity) and Three (Zinc) Response Report  
Port of Longview  
Longview, Washington  
NPDES Permit No. S03001242D  
K/J 016116.00

Dear Ms. Smith:

The following is a report for the Level Two Response for turbidity and a Level Three Response for zinc for the Port of Longview's (POL) National Pollutant Discharge Elimination Permit (S03001242D) Industrial Stormwater Permit.

**Source Assessment****Berth 5 (B5)**

Berth 5 consists of tall silos and a closed conveyor system that conveys calcined coke. The source of zinc at this facility is most probably the uncoated galvanized siding, roofing, and conveyor covers.

**Maintenance Shop (MS)**

The MS is a large structure with galvanized siding and roofing. The most likely source of zinc at this structure is from dissolved and particulate zinc oxides carried in the rainwater runoff. In addition, the MS is located close to and adjacent to the Oregon Way Bridge over the Columbia River where there is heavy traffic. The MS is also adjacent to the Weyerhaeuser log sort yard where multiple log trucks enter and leave that facility. Not all of the turbidity and zinc may be coming from POL facilities. The MS sampling location flows to the Perimeter Ditch, which flows north to the new Stormwater Outfall Structure on the new 48-inch Outfall and then into Ditch #3.

**Response Activities**

The POL will conduct a sampling program during the winter of 2007/2008 to determine the amount of zinc being contributed by the B5 and MS buildings. This will provide additional

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information on whether or not additional controls need to be implemented to meet zinc discharge requirements.

The POL will evaluate installing catch basin inserts equipped with media filtration curtains to treat dissolved metals as well as suspended solids in stormwater. The effectiveness of these actions will be evaluated after the data from the sampling program is available in the coming months. Modifications to methods and equipment implemented will be modified based on this study.

### **B5 Response Activities**

A detailed survey of the B5 area will be conducted and additional features may be designed, including additional berms to capture the runoff and new catch basins and piping to route the runoff from the B5 area to the Berth 7 (B7) Industrial Wastewater Treatment Plant (IWTP). It is anticipated that the survey and design work will take approximately three months to complete. Construction is anticipated to take up to 12 weeks after selection of the contractor and notice to proceed.

### **MS Response Action**

The MS facility flows through a ditch system into the Perimeter Ditch flowing north to the new Stormwater Outfall. Observations of the Perimeter Ditch system indicate that significant infiltration occurs in this ditch which acts like a very large bioswale.

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A detailed survey of the MS area will be performed in the next three months to determine the extent of the area draining into the MS drainage system. If the survey shows that modifications to the MS drainage facilities are needed, the POL will design and implement these changes in the future.

### **Source Control and Operational Improvements**

Improved source control and operational best management practices (BMPs) are being implemented by the POL, including more diligent implementation of the Stormwater Pollution Prevention Plan (SWPPP) and further assessment of potential pollutant sources and solutions. Specific examples of some improved source control/operational BMPs include:

- More frequent site visits by environmental personnel to observe work practices and remind operational personnel of appropriate source control and operational BMPs.
- Additional training of maintenance personnel.
- Prompt cleanup of spilled materials (if any).
- Cleanout of catch basins system as inspections indicate.
- Cleaning of the stormwater conveyance system as inspections indicate.

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- Investigation of current mechanical sweeping methods and recommendations for operational changes.
- More focused sweeping/cleaning of suspected source areas.
- Investigation of potential constituent loading from the facility roof and siding and drainage systems.

At this time, the SWPPP has been fully implemented and is continuing to employ practical methods of source and operational control.

### **Treatment at B5**

Decreasing dissolved and particulate zinc in stormwater runoff from B5 will be difficult using conventional stormwater treatment methods. Most likely all exposed galvanized surfaces would have to be passivated and over coated with a robust coating of epoxy/aliphatic urethane system that is ultraviolet-resistant. This coating system would be very expensive. Recently, the POL has added curbs to capture a portion of the runoff from B5 and direct it to a new catch basin which then drains to the B7 IWTP. The discharge from the IWTP is routed to the Three Rivers Regional Wastewater Treatment Plant. Based on observations at B5 and the results of recent sampling activities, it may be necessary to route more runoff from B5 to the B7 IWTP in order to meet Benchmark requirements.

### **Stormwater Master Plan Update**

POL will update the 2000 Stormwater Master Plan to reflect the current situation at the POL and new sampling locations that more accurately reflect how stormwater is being collected, treated, and discharged from POL property. As part of that update, a data logger may be installed in the new Stormwater Outfall Inlet Structure to determine how much water is being discharged into the new outfall from the Perimeter Ditch during rainfall events. This will provide valuable information on determining how much treatment may be required.

### **Conclusion**

The POL is taking multiple actions to implement appropriate source control, operational, and treatment BMPs as part of the Level Two/Three Responses to pollutant concentrations above Action Levels. The POL will continue to work with operational personnel to insure the SWPPP continues to be implemented and to assess additional response actions that could be taken to improve stormwater quality.

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Please contact Melissa Godlewski of Kennedy/Jenks Consultants at (253) 874-0555 or Judy Grigg at the Port of Longview at (360) 425 3305, if you have questions or would like to discuss this Level Two/Three Response Report.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



Melissa E. Godlewski, P.E.  
Project Manager

**Certification**

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



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Judy Grigg  
Environmental Manager  
Port of Longview