

November 4, 2010

Mr. David Lacey
Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987

**Subject: Swan Island Upland Facility
Storm Water Source Control Evaluation, Operable Unit 3
ECSI No. 271**

Dear David:

This letter provides the Oregon Department of Environmental Quality (DEQ) with a response to the comments received on the Swan Island Upland Facility Operable Unit 3 (OU3; Facility) *Storm Water Source Control Evaluation* (SWSCE) dated March 10, 2010. DEQ comments were received in a letter dated September 21, 2010.

In the introduction of the comment letter, DEQ indicated that although constituents were detected in stormwater samples and cleanout solids samples at concentrations above the Joint Source Control Strategy (JSCS) Screening Level Values (SLVs) that source control is not needed for the majority of these constituents. DEQ indicated that the concentrations of polychlorinated biphenyls (PCBs) are of concern and that additional evaluation is needed to address these exceedances. The primary objective of the JSCS is to identify and evaluate potential sources of chemicals that *may* impact the river. The detected concentrations may exceed the conservative SLVs but the potential impacts cannot be evaluated until harbor-wide cleanup values have been established and a more quantitative analysis of recontamination potential can be conducted.

DEQ comments are repeated below in *Italics*, each followed by a response to the comment.

GENERAL COMMENT

PCBs were detected in two of the four stormwater sampling events at concentrations that significantly exceed the JSCS SLVs. In stormwater at catch basin WR-030 Aroclor 1260 was detected at 0.429 parts per billion (ppb) and 0.197 ppb. These detections are above levels typically observed at Portland Harbor sites and suggest that a local source may be present. The concentration of PCBs detected in solids collected from catch basins and stormwater lines also suggest that a local source may be present. Aroclor 1260 was detected in stormwater line solids at a concentration of 1,490 ppb and in catch basin solids at 499 ppb. Additionally, river surface sediment samples collected adjacent to Operable Unit 3 (OU-3) suggest that a local source may be present. Three surface sediment samples have been collected adjacent to OU-3:

- LW2-G421 had Total PCB concentrations of 555 ppb,
- LW2-G426 had Total PCB concentrations of 293 ppb, and
- YD&M97DM16DM16 had Total PCB concentrations of 70.1 ppb.

While a specific source of PCBs at OU-3 has not been identified, the lines of evidence presented are insufficient to support a conclusion that no sources are present at the site. DEQ requests that the Port conduct a minimum of three rounds of conformational stormwater sampling. If PCB concentrations are consistently within the range of "typical" Portland Harbor industrial stormwater samples, DEQ will consider this to be an indication that stormwater management measures are effective at minimizing contaminant releases to the lagoon.

Additionally, in order for DEQ to issue a Stormwater Source Control Decision for this site, the Port will need to demonstrate that there are adequate controls in place to ensure stormwater quality will be maintained in the future, including BMPs and ongoing stormwater monitoring practices to demonstrate the effectiveness of stormwater controls.

Lastly, please note that because of hydraulic conditions in the lagoon (i.e., limited mixing with the main stem), DEQ and EPA believe there is an increased potential for stormwater discharges to recontaminate sediments and load fish tissue following cleanup (i.e., relative to stormwater discharges into the main stem of the river). DEQ and EPA will continue to monitor the protectiveness of source control measures at the site as the sediment remedy selection, design and implementation progresses for the lagoon. Consequently, it is possible that following a source control decision the Port may be required to do additional source characterization or source control measures, including stormwater treatment.

Response: As documented in the SWSCE, the Port has implemented numerous best management practices (BMPs) at OU3. The Port will continue to implement BMPs, monitor uses of the Facility by its tenants, and revise the BMPs as necessary. Although no current or historical sources of PCBs are known to be present on the Facility, the Port will conduct three rounds of confirmational stormwater sampling for PCBs from inlet WR-030 (where Aroclor 1260 was detected in two of the four samples collected) to confirm the surface pavement cleaning and current BMPs are sufficient.

SPECIFIC COMMENTS

DEQ Specific Comment 1: Page 2, Section 2.1.1 Current and Recent Facility Use; *The report states that the catch basin located in the warehouse was disconnected from the City of Portland (City) sanitary sewer. Please confirm that the City was notified of this and that it was done in accordance with City requirements.*

Response: The Port will complete this request and include the findings in future correspondence with DEQ.

DEQ Specific Comment 2: Page 6, Section 2.5.1 Port BMPs; *While the BMPs described in this section appear to be appropriate for the site, their implementation is not a guarantee of their effectiveness. As stated above, the Port will need to demonstrate that stormwater management measures are and will continue to be effective at minimizing contaminant releases to the lagoon. This may require modifications to the Port's MS4 permit or some other mechanism to ensure ongoing oversight and evaluation.*

Response: Noted. As noted in the general comment response, the Port will continue to implement BMPs, monitor uses of the Facility by its tenants, and revise the BMPs as necessary.

DEQ Specific Comment 3: Page 14, Section 5.1 Stormwater Results: *A Total Suspended Solids (TSS) concentration of 140,000 ppb was observed in stormwater. This concentration is quite high and correlates to elevated concentrations of several COIs for the site. The elevated TSS suggests that the current BMPs in place are not sufficient to adequately control TSS at the site. Routine sweeping of the site is not included in the Ports BMPs for the site but may be effective at reducing TSS.*

Response: The Port does not agree that this one-time observed elevated TSS concentration in one inlet supplies adequate information to make any conclusion on the adequacy of BMPs in place. The subsequent stormwater sampling results indicate a substantial decline in TSS concentrations in all three inlets sampled. These results could also suggest that BMPs are sufficient to control TSS at the site.

DEQ Specific Comment 4: Page 17, Section 6.2 Data Analysis: *PCBs were detected in two of the four samples collected at catch basin WR-030 at concentrations over 100x the SLV for total PCBs. These observed concentrations are above typical concentrations observed in stormwater samples collected in the Portland Harbor area at other industrial sites. This suggests a potential on-site source other than atmospheric transport as suggested by the Port. Elevated levels of PCBs were also detected in the clean out solids samples collected from the stormwater lines and catch basins. Additional investigation of PCBs is needed.*

Response: No current or historical sources of PCBs are known to be present on the Facility (which is almost entirely paved with asphalt-concrete). The only unpaved areas are the vegetated riverbank and a landscaping strip along N. Lagoon Avenue. As noted in the general comment response, the Port will conduct additional stormwater sampling of inlet WR-030 to further assess PCBs.

DEQ Specific Comment 5: Page 17, Section 6.2 Data Analysis: *The comprehensive surface cleanup occurred on March 23, 2009, but the significant decrease in TSS occurred between the 2/23/2009 and 3/14/2009 sampling events. Therefore the significant decrease in TSS from 140,000 to 20,000 ppb was not the result of the March 23, 2009 actions. As stated, high TSS correlates with elevated contaminant concentrations in stormwater for the site. Routine sweeping of the site may significantly reduce TSS for the site. Has the implementation of routine sweeping been evaluated as a BMP for the site?*

Response: TSS is highly variable depending on a number of factors such as storm intensity, antecedent weather, site activities, etc. The report does not state nor is it intended to imply that the TSS decrease from the 2/23/2009 to 3/14/2009 was related to the comprehensive surface pavement cleaning. Rather, the report indicates that TSS after the pavement cleaning is substantially lower than TSS before the surface cleaning. This is demonstrated by the fact that the maximum detected TSS concentration at any time or location after the pavement cleaning is less than any detected concentration prior to the cleaning. The surface cleaning removed a significant amount of accumulated vegetation and other solids resulting in a sustained reduction in the TSS concentrations. As noted in previous responses, the Port will continue to implement BMPs, monitor uses of the Facility by its tenants, and revise the BMPs as necessary.

DEQ Specific Comment 6: Page 18, Section 7.0 Conclusions: *DEQ does not agree that detected concentrations in stormwater are low and not considered significant. Total PCBs exceeded the JSCS SLV by greater than 100 times.*

Response: To clarify, Aroclor 1260 was detected in one inlet (WR-030) in two of the four samples collected but not at greater than 100 times the SLV (0.034 ug/L). The maximum detected concentration of Aroclor 1260 was 0.429 ug/L before the surface pavement cleaning and 0.197 ug/L after the surface cleaning. These correspond to 13 and 6 times the SLV, respectively.


As noted in the introduction to this letter, the detected concentrations may exceed the conservative SLVs but the potential impacts cannot be evaluated until harbor-wide cleanup values have been established and a more quantitative analysis of recontamination potential can be conducted.

DEQ Specific Comment 7: Page 18, Section 7.0 Conclusions: *DEQ does not agree that detected chemicals and associated concentrations in the solids from the storm water cleanout are within the expected ranges for urban background.*

Response: Regardless of the comparison to background values, the 2008 storm water system cleanout removed any uncertainty that accumulated solids within the system could be a source to the river (i.e., legacy solids were removed).

Please call me at (503) 415-6676 if you have any questions.

Sincerely,



Kelly Madalinski
Environmental Project Manager

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