UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

FEB 14 2012

OFFICE OF
ENVIRONMENTAL CLEANUP

Mr. (b) (6)
Chairman
Harbor Oil Community Advisory Group
2209 Schofield
Portland, Oregon 97217

Dear (b) (6)

The Environmental Protection Agency Region 10 has received your January 9, 2012 letter regarding the Harbor Oil Remedial Investigation in Portland, Oregon. Dennis McLerran, the Regional Administrator, requested I respond to your letter, as I am the Director of the Office of Environmental Cleanup, the program that is investigating the Harbor Oil Site. I would like to thank you for your attention to the project and coordinating with other stakeholders on the Project. The EPA benefits from active community members who help to ensure we are aware of community concerns.

The concerns you have identified in your letter are not unique to the Harbor Oil site. Conducting an investigation under the Superfund Program requires balancing uncertainties to determine how much information is needed to evaluate risk and the need for action. The Superfund remedial investigation process recognizes there are uncertainties in sampling due to limitations in toxicity information, sampling error, natural variability, and exposure assumptions. The EPA relies on protective assumptions to counter uncertainties.

The three concerns you identified in your letter have been evaluated, and the EPA believes the degree of uncertainty you discuss does not compromise protection of human health and the environment.

1. The utilization of BSAFs and BAFs is designed to be protective. This approach is used routinely at sites like Harbor Oil. We are confident the values used for the risk assessment at this site are likely to overestimate, not underestimate, the risk to aquatic receptors. Based on other studies comparing congener-specific values to Aroclor values, any potential increase in calculated risk would be slight and would still not exceed our threshold for action. Force Lake's macrobenthic invertebrate community does not appear to be impaired, as evidenced by the functioning food web exhibited by higher trophic level consumers utilizing the lake.

2. In your letter you also request that additional PCB sampling of sediments be conducted using EPA method 1668, which would provide an estimate of PCB contamination as a sum of detected congeners. It is important to note that the reference values for evaluating risk from PCBs at this site are based on Aroclor studies, not congeners, which reduces the uncertainty of basing the calculated risks on Aroclors. Thus, this additional analysis would result in less conservative assessments, not more conservative.

3. The EPA has previously responded to the concern you raised regarding stormwater discharges from the Facility. In a May 20, 2011 letter to the City of Portland, on which all the stakeholders were copied, the EPA explained why stormwater discharges from the facility are not causing unacceptable risks, as evidenced by no water quality exceedances in Force Lake and because the risks assessments for the Site do not show unacceptable risk. If the State of Oregon believes the NPDES stormwater permit is not protective, they have the option to use their authority to revise the permit.

Please be aware that the EPA has not finalized the Remedial Investigation because we have other concerns with how the Potentially Responsible Parties have revised the document from the draft stage. I encourage you to stay engaged with the project, despite our apparent disagreement on whether the issues you raise in your letter suggest unacceptable risks are present. If you would like to discuss this further, please contact Christopher Cora, Remedial Program Manager for this Site at (206) 553-1478 or by email at Cora.Christopher@epa.gov.

Sincerely,

Daniel D. Opalski
Director

Enclosure:

1. Letter dated May 20, 2011

cc: Ms. Rose Longoria
Yakama Nation

Ms. Erin Madden
Nez Perce Tribe

Ms. Susan Barthel
City of Portland

Mr. Paul Seidel
Oregon Department of
Environmental Quality

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May 20, 2011

Susan Barthel
City of Portland, Environmental Services
1120 SW Fifth Ave, Room 1000
Portland, Oregon 97204

Re: Harbor Oil NPL Site Stormwater Concerns

Dear Ms. Barthel:

The U.S. Environmental Protection Agency (EPA) has reviewed the City of Portland Environmental Services letter dated February 1, 2011 regarding a City conducted storm water sampling event at the Harbor Oil Superfund Site. The City's letter indicates that because the Remedial Investigation did not collect storm water samples from Harbor Oil, there is a significant data gap at the Site. As a result, the City is encouraging EPA to include stormwater sampling in the RI for the Site. I would like to address the letter and why EPA does not concur with the City's position.

First and foremost, it should be made clear that it is not the role of EPA under CERCLA to control or regulate storm water discharges. EPA under CERCLA may clean up spills or releases from a source to the environment. If a release is found under this circumstance, then all media, including storm water, should be evaluated to determine the need for remedial action. However, EPA did not find releases of hazardous substances that pose unacceptable risk at this site. Under the Clean Water Act, the NPDES permitting authority can regulate storm water discharges. Since the NPDES program has been delegated to the State of Oregon, the issues of storm water control must be raised with the State permitting authority. The following discussion pertains to EPA's role under CERCLA. EPA is not opining on whether the storm water sample that the City took shows that there has been an exceedance of water quality standards for which an enforcement action could be taken under the Clean Water Act.

Releases from the Harbor Oil Superfund Site have been evaluated for impacts to terrestrial and aquatic organisms, including birds, as well as humans and the risks were deemed to be within the range of generally acceptable risks as provided in the National Contingency Plan. EPA's risk assessments are designed to ensure risks are not underestimated and thus likely overestimate the actual risks to receptors.

Your letter states on page 2: "Storm water discharge concentrations exceed the screening level value concentration considered protective of ecological (e.g., chronic water quality criteria) and human health (e.g., fish consumption) presented in the JSCS and DEQ's Guidance for Evaluating Storm water Pathway at Upland Sites." (No screening level values were provided in the letter, nor any interpretation of the results were included in the package.) Also on page 2 the letter states that: "The presence of Harbor Oil contaminants of concern in stormwater discharging to

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Force Lake, . . . supports the need for including an evaluation of this pathway in the Harbor Oil Remedial Investigation and Risk Assessments." Below are our concerns with the City's statements. The data the City provided from its storm water sample indicates exceedances of water quality standards in the sample results. EPA has collated the pesticide and PCB results provided by the City for the edification of those who did not receive the data package. For comparison purposes, EPA has added in the Oregon ambient water quality criteria (AWQC) as of February 22, 2007.

Sample #	Contaminant	Result	HH-AWQC	Eco-AWQC
W10K004-01 (effluent)	4,4'-DDE	4.5 ng/L	0.22 ng/L	---
	4,4'-DDD	16 ng/L	0.31 ng/L	---
	Endosulfane sulfate	5.7 ng/L	89,000 ng/L	---
	Total PCBs	20.1 ng/L	0.064 ng/L	14 ng/L
W10K004-02 (influent)	4,4'-DDE	1.4 ng/L (estimated)	0.22 ng/L	---
	4,4'-DDD	ND (1.1 ug/L)	0.31 ng/L	---
	Endosulfane sulfate	ND (1.4 ug/L)	89,000 ng/L	---
	Total PCBs	ND	0.064 ng/L	14 ng/L

1. Notwithstanding the water quality exceedance in stormwater, we investigated the surface water and sediment in Force Lake and did not find unacceptable impacts. Specifically, the mean sediment values in Force Lake are below the Macdonald consensus based PEC values for total PCBs and total DDT. Additionally, the surface water data collected in Force Lake and North Lake for the RI indicated there were no exceedances of AWQC for PCBs or DDTs. I encourage you to review the Draft Final RI to obtain a better understanding of impacts to surface water. We believe our RI data is a better representation of the water quality and sediment quality in Force Lake than a single sample from the effluent pipe of the permitted storm water system.

2. Secondly, only one sample of the effluent from the storm water discharge was collected by the City's inspector. As your letter acknowledges, an isolated storm water sample does not represent the impacts to the receiving environment. (EPA could not fully evaluate the metals results as there were no hardness values provided in the data set and the exceedances of AWQC for metals (copper, lead, and zinc) are hardness dependent.) Conversely, three surface water and fourteen sediment samples were collected from Force Lake for the RI. The facility's storm water does not discharge directly to Force Lake, but rather is discharged in a wooded wetland. Sediment Sample SE-02 was the nearest lake sediment location sampled during the RI. It was within 50 feet of the lake shore, "downstream" of the storm water outfall and had a concentration of 99 ug/kg total DDT, and was non-detect at a detection limit of

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33 ug/kg for PCBs. EPA's risk assessment on the RI data determined the risks to humans were acceptable, based on CERCLA's acceptable cancer risk range of 1E-4 to 1E-6. Incidentally, the PCB and pesticide results show higher effluent concentrations than influent concentrations, the opposite trend of the metal results. This raises concerns about the operation of the stormwater system itself, or chain of custody for the samples.

3. By suggesting the Harbor Oil site should use the same screening level values as the Portland Harbor Site, it appears the City believes stormwater runoff from Harbor Oil may be a continuing source of contaminants to Force Lake. The RI evaluated current risks posed by historical releases, including the continuing discharges through 2009. The RI characterization of Force Lake sediments and surface water determined that runoff to the adjoining wetlands and Force Lake via stormwater does not pose an unacceptable risk, and further characterization or action would be unnecessary. The JSCS represents a framework for making upland source control decisions at the Portland Harbor Superfund Site, and the overarching goal of the JSCS is to identify, evaluate, and control sources of contamination that may reach the Willamette River. EPA does not believe the JSCS is applicable to Harbor Oil as the site does not represent a potential source of contamination to the Willamette River within the boundaries of the Portland Harbor Superfund site. However, if the City were to apply the JSCS to the results of your recent stormwater sampling the discharge from Harbor Oil would either fall within a medium or low priority site, per section 4.4 of the JSCS.

EPA acknowledges there may be DDTs discharged in the storm water effluent to the associated wetlands. DDT was historically applied in the area and is known to be discharged from agricultural fields and City owned stormwater outfalls to the Columbia Slough (Columbia Slough Sediment Study, March 2011). However, the effluent discharge does not go directly to Force Lake, and thus is likely bound with wetland soils prior to going to Force Lake. Basically there is inadequate information provided by the City to reach any conclusions from the data provided. Incidentally, there were no "elevated concentration zones" adjacent to the discharge point for waters draining the Peninsula 1 drainage district, which includes Force Lake, to the Columbia Slough in the March 2011 study or the earlier 2006 sediment report prepared by the City (Page 38 and 39, Section on the 2006 Pattern of DDE and DDD of the 2006 Sediment Study states: "The medians and means of all sections except North Slough, Peninsula Drainage Canal and Buffalo Slough exceeded the screening level."). This statement is interpreted to mean Peninsula 1 drainage district discharges are not causing exceedances of sediment screening levels in this section of the Columbia Slough.

The remainder of your letter discusses the value of evaluating storm water discharges to assess their impacts to the receiving water. The Remedial Investigation evaluated impacts to receptors in Force Lake by sampling sediments and surface water. The results indicate that there are not unacceptable risks to those receptors or humans who may consume fish from Force Lake. In any investigation there is an element of uncertainty. EPA believes those uncertainties are more likely to result in an over estimation of risks from releases at this Site. Because the risk assessment

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identified there is no unacceptable risk, there is no need to look for or evaluate sources to the lake, including stormwater, under the CERCLA program. Stormwater has been previously sampled by ODEQ and the facility operators. A June 28, 1988 sample of the stormwater treatment system had non-detect for DDT, DDD, and DDE . The facility has conducted sampling since at least 1994, but only for contaminants identified in their Permit (no pesticides and PCBs).

As the City of Portland is the legal owner of Force Lake and the adjacent wetlands, the City may take any action it finds appropriate to address the City's concerns with contaminant levels in Harbor Oil's stormwater, including requiring monitoring of storm water. The Harbor Oil facility has been under a NPDES Permit since 1983. In 1983, the facility was known to handle oil containing PCB's and the area was known to have historical application of DDT. If the State, or City, suspected historic practices would result in storm water discharges that would not protect the beneficial uses of the receiving water, then the facility would have received an individual NPDES permit that would control and monitor for all potential contaminants which may impact the beneficial uses of Force Lake. Industrial facilities' storm water discharges must meet state water quality standards. Storm water permits are meant to control and eliminate any pollutants found in storm water from industrial activity areas no matter when or how such pollutants came to be located in those areas and sampling and monitoring for any potential pollutants that may reasonably be expected to be in storm water from a facility can be and should be monitored by the permittee. In fact, EPA's guidance on the development of Storm Water Pollution Prevention Plans under the industrial activity storm water permit requires that locations of past spills or leaks should be identified. I encourage you to review EPA guidance at:

http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf

EPA believes the City's characterization of the deficiencies of the RI is unsupported by the information provided in your February 1, 2011 letter and as such does not warrant additional sampling through the remedial investigation. EPA is available to discuss these concerns, and any others the City has in characterizing the site. We can explore what alternative regulatory options are available to address your concerns related to Force Lake, as EPA shares the concerns the city has in protecting the resources in the area. I am always available to discuss any aspect of the remedial investigation and can be reached at (206) 553-1478.

Sincerely,

Christopher Cora
Project Manager

cc: Jan Betz, City of Portland
Rick Applegate, City of Portland
Nancy Hendrickson, City of Portland
Dawn Sanders, City of Portland
Todd Lofgren, Portland Parks and Recreation

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David McAllister, Portland Parks and Recreation
Jim Anderson, Oregon Department of Environmental Quality
Paul Seidel, Oregon Department of Environmental Quality
Barbara Stifel, Oregon Department of Health Services
(b) (6) [redacted], Harbor Oil Community Advisory Group
Rose Longoria, Confederated Tribes and Bands of the Yakama Nation
Erin Madden, Nez Perce Tribe

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