Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
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November 14, 2002

Bill Houston
Executive Director
Port City Development Center
1847 E. Burnside
Portland, OR 97214

Re: Former Wagstaff Battery,
ECSI # 1243

Dear Mr. Houston:

The Oregon Department of Environmental Quality (DEQ) reviewed the November 6, 2002 *Scope of Work and Cost Estimate for Site Investigation Activities at the Former Wagstaff Facility*. The Scope of Work (SOW) was prepared by Environmental Forensic Investigations, Inc. (EFI) for the former Wagstaff Battery site. Generally, DEQ concurs with the work proposed. The additional investigation and sampling will address required provisions of the Prospective Purchaser Agreement (PPA) between DEQ and Port City Development Center (PCDC). We have a few comments that should be addressed in a work plan or a detailed, revised SOW.

In order to complete our review of the proposed additional work, DEQ also reviewed the *Former Wagstaff Battery Supplemental Environmental Soil Sampling/Analysis and Contingency Plan* (City of Portland, September 18, 2000), the *Soil Sampling and Analysis Report for Former Wagstaff Battery Site* (City of Portland, January 24, 2002), and the EFI-Henshaw July 25, 2002 Scope of Work, which were provided by Russ Goddard of General Client Services, Inc.

Scope of Work Comments

Sump 1 (and others)

1. DEQ understands that contaminated soil beneath Sump 1 was removed to a depth of 6 feet below ground surface (bgs) and the vertical extent of residual contamination was defined. DEQ did not request additional work at Sump 1, other than that it be capped as part of redevelopment. Contaminated soil was also removed from Sump 2 to a depth of 4 feet bgs. It is likely that the work reported by the City of Portland (September 18, 2000) was for Sump **1A**, located adjacent to Sump 1. In addition to sampling sump wastes, DEQ previously requested that the integrity of Sump 1A be evaluated to determine if there were discharge points or cracks that could allow preferential release of sump wastes. The proposed work should address this concern (see also our Other Areas/Comments below).

2. Tests to determine discharge points should be conducted not only on Sump 1A, but also the "fiberglass box", Sump 2 or any other currently accessible sumps or floor drains identified that could have received hazardous substances.

3. Any sumps that have already been filled and capped (e.g., the floor drain/Sump 3 in the former machine shop) should be reported to DEQ in an update on the recent construction activities.

Soil Underneath Parking Areas

4. Since the most likely source of contamination in the parking area is surface spills, samples should be collected from just below the current/former asphalt, rather than at 3-feet below pavement. If there are features that suggest other sources, such as sumps or piping, these should be identified and characterized separately (e.g., the PNG Environmental Phase I report recommended sampling at a "water valve opening").

5. Samples should be analyzed for lead. Although petroleum hydrocarbons were detected in interior sumps, lead is the primary contaminant of concern and has thus far driven the need for cleanup. Volatile organic compounds (VOCs) were not detected in the sump samples analyzed for VOCs and they are unlikely to be found in shallow soils. Total petroleum hydrocarbons (TPH) and VOC analyses are not necessary unless there are field indications of contamination, such as visual staining or solvent odors. If there are indications of contamination, soil samples should be collected in a manner or depth that avoids getting asphalt in the samples.

6. If lead is detected in the parking lot area at concentrations that might exceed the characteristic for hazardous waste, the sample with the highest lead concentration should be analyzed for lead by the Toxicity Characteristic Leaching Procedure (TCLP) to confirm that the contaminated soil will not be considered a hazardous waste for off-site disposal.

Soil Characterization of Eastern Yard Area

7. Previous sample data should be plotted on a figure to indicate where data is currently available.

8. The most likely sources of lead in the yard area appear to be: 1) past air emissions, 2) dumping of facility wastes on the ground surface, and 3) floor wash water discharged at the edges of the Building 1 footprint. Therefore, sampling should target the soil horizon that was exposed during the facility's battery manufacturing operations. Since soils have been disturbed, we recommend collecting samples at two depth intervals at each location, approximately 6 inches to 1 foot and 1.5 to 2 feet bgs. The overall objective is to collect data in the upper 3 feet that can be used to both screen for risk to future residents or site workers, and to define areas where soil may need to be removed or capped to be protective.

9. Please specify the sample collection method and corresponding sampling interval (e.g., 3-inch diameter hand auger with 12-inch length).

10. Given that some soil data is already available, the sample density could be reduced from 15-foot centers to approximately 50-foot centers.

11. If not included within the sampling grid, biased samples should be collected on either side of those areas where high lead concentrations were detected by the City of Portland (S-4 with 1,660 mg/kg lead and sample "Wagstaff North" with 2,590 mg/kg lead).

12. As above, samples should be analyzed for lead. The need for TPH or VOC analysis should be based on field indications of contamination.

13. The sample with the highest total lead concentration detected in the eastern yard area should be analyzed for lead by the Toxicity Characteristic Leaching Procedure (TCLP) to confirm that the contaminated soil will not be considered a hazardous waste for off-site disposal.

Other Areas / Comments

- The Sump 1A sampling completed by the City of Portland shows lead concentrations that exceed the TCLP standard for hazardous waste. Similar to the work conducted for Sump 1, DEQ recommends that the contaminated sludge/soil accessible at the bottom of Sump 1A be removed and disposed of off-site at an approved hazardous waste facility so that soil remaining in place is below hazardous waste levels. The vertical extent of residual soil contamination should be better defined through a soil boring at the bottom of the sump. Sump 1A should then be filled and capped.

- PCDC should confirm that residual lead contamination beneath the building near the former dry well is still covered by a cap (the existing building foundation or newly poured concrete).

- Any future construction within the building that exposes shallow soils beneath the foundation, such as that proposed for the wheelchair ramp, should be sampled when it is excavated to confirm that lead contamination is not present. In accordance with the PPA, contaminated soils should not be disturbed without prior written approval from DEQ.

PCDC should provide an update to DEQ describing the status of construction, any proposed additional development activities, and associated environmental concerns.

Please call me at 503-229-5502 if you have any questions about these comments or our oversight of the project.

Sincerely,

Thomas E. Roick, Project Manager
Cleanup & Portland Harbor

Cc: Tom Gainer, DEQ NWR
Russ Goddard, General Client Services, Inc.