



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

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February 24, 1998

Chad Hindman
22 Othello
Lake Oswego, OR 97035

Re: Cleanup Approval
Wagstaff Battery

Dear Mr. Hindman:

The Oregon Department of Environmental quality (DEQ) has completed our review of the information submitted to date for the Wagstaff Battery site located at 2124 N. Williams Avenue, Portland, Oregon. Our review focused on petroleum and lead contaminated soils. The DEQ has determined that the remaining contamination does not pose a threat to human health or the environment and that no further action is required under Oregon Revised Statutes (ORS) 465.200 et. seq.

Wagstaff Battery manufactured and distributed batteries between 1962 and the early 1991. In 1973, Wagstaff produced about 800 batteries per year, using 240 tons of lead ingot. In 1986, Wagstaff produced approximately 500 batteries per year and used approximately 70 tons of lead and 100 tons of lead oxide per year. During environmental investigations between 1992 and 1997, four areas of environmental concern were identified. These included a drywell, Sump #1, Sump #2, and surface soil contamination resulting from fugitive lead emissions.

The DEQ's determination that no further action is necessary is a result of our evaluation of the facts as we understand them including:

Drywell

Environmental concern initially focused on the drywell, located on the east side of Building #1 where historic discharges of water, dilute sulfuric acid, and lead had occurred. The DEQ has determined that a pocket of lead contaminated soil is present at approximately eight to twenty feet below ground surface (bgs) at the eastern side of Building #1. For a sample at 19 feet bgs, total lead concentration (3,750 mg/kg) exceeds the Oregon Administrative Rules (OAR) 340-122-045 Soil Cleanup Levels, Residential Maximum Allowable Soil Concentration of 200 mg/kg¹, but has an estimated TCLP concentration (2 mg/l) which is equivalent to the leachate reference concentration of 2 mg/l. For a sample at 8 feet bgs, TCLP is 39 mg/l which exceeds the 2 mg/l leachate reference concentration.

¹ DEQ, 1994, "Soil Cleanup Manual" OAR 340-122-045 and 046.

Historic discharges of dilute sulfuric acid to the drywell probably contributed to the high concentration of leachable lead. The sulfuric acid created a low pH environment in which lead is more soluble compared to more typical conditions of rainwater infiltration. In evaluating this site as a pocket closure, DEQ considered that the discharge of dilute sulfuric acid terminated approximately five years ago, future infiltration of rainwater should buffer the low pH environment and further reduce lead solubility, and an estimated thirty feet of uncontaminated soil is between the pocket of contamination and groundwater. DEQ approves leaving this pocket of contamination because the removal of this contamination would endanger the integrity of the building and the pocket does not threaten human health, safety, welfare and the environment.

Sump #1

Sump #1 is located in the northern portion of Building #1. The DEQ has concluded that a pocket of lead and TPH contaminated soil remains beneath Sump #1 which exceeds the currently required cleanup levels, but which the DEQ approves leaving since the removal of this contamination would endanger structures and the pocket does not pose a significant threat to human health, safety, welfare and the environment. The pocket size is approximately one cubic yard. Contaminant concentrations for lead are between 19 mg/kg and 1,900 mg/kg, potentially exceeding the Residential Maximum Allowable Soil Concentration of 200 mg/kg. Contaminant concentrations for TPH are between non-detect and 17,000 mg/kg.

Sump #2

Sump #2 is located in the western portion of Building #1. Initial soil testing did not detect volatile organics, PCBs or TPH. Total lead was detected at 5,700 mg/kg and 34,000 mg/kg. After excavating contaminated soil to a depth of approximately four feet below the concrete floor, total lead was measured at 15 mg/kg which is less than the most rigorous soil cleanup standard of 200 mg/kg.

Surface Soils

During a 1986 DEQ Air Quality inspection, soil samples from the Wagstaff property and the vicinity detected elevated lead concentrations (300 mg/kg to 4,000 mg/kg). The source of the lead contamination may have been fugitive dust emissions from the battery operations at Wagstaff or lead emissions associated with neighborhood vehicular traffic.

In October 1997, three surface soil samples were collected from the exposed eastern portion of the property in the emission pathway of a former building exhaust fan in Building #1. Lead concentrations ranged from 22.2 mg/kg to 139 mg/kg which is less than the 200 mg/kg residential cleanup standard established for total lead. The DEQ concluded that lead is not a contaminant of concern in shallow surface soils.

Cleanup Approval

The DEQ has determined that two pockets of contamination remain at this site. One pocket of lead contaminated soils remains at depth, adjacent to the east wall of Building #1. The second

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pocket of lead and TPH contaminated soils remains at depth beneath Sump #1, which is located in the northern portion of Building #1. DEQ approves leaving these pockets of contamination in place because removal would endanger structures on the property, and exposure to the contaminated soil is limited and does not threaten human health, safety, welfare and the environment in its current location under the building.

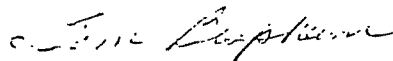
However, you should be aware that the DEQ's approval to leave a pocket of contamination is based on the site conditions described in the report as they exist today. Should conditions (i.e. land use) change allowing access to the contamination, you are responsible for further evaluation of the remaining contamination and any cleanup necessary at that time. You are also responsible for notifying any potential purchaser of the property about this remaining pocket of contamination.

The DEQ's determination will not be applicable if new or undisclosed facts show that the cleanup does not comply with the referenced rules. The DEQ's determination also does not apply to any conditions at the site other than the release of the petroleum and lead to the sumps and the release of lead to the drywell specifically addressed in your reports. We recommend that a copy of all information be maintained with the permanent facility records.

DEQ files and the Environmental Cleanup and Site Information (ECSI) database will be updated to reflect the No Further Action determination.

Your effort to comply with the regulations to ensure that your facility has been adequately cleaned up is appreciated. If you have questions, please feel free to contact Sheila Monroe at (503) 229-5445.

Sincerely,



Tom Bispham
Regional Administrator
Northwest Region

SAM:sam

Cc: Bruce Hindman, Wagstaff Battery
Mike Rosen, VC/SAS:DEQ
Tom Roick, VC/SAS:DEQ
Vicki Wagers-Scott, Senator Bob Kintigh's Staff