



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
ENVIRONMENTAL
CLEANUP

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MEMORANDUM

SUBJECT: No Further Five-Year Reviews for the Vancouver Water Station #1 Contamination Superfund Site, Vancouver, Washington; EPA ID: WAD988519708

FROM: Michael J. Szerlog, Acting Program Manager *mjs*
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TO: Ronnie Crossland, Acting Director
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Purpose

The purpose of this memorandum is to document why the U.S. Environmental Protection Agency (EPA) will no longer be conducting five-year reviews (FYRs) at the Vancouver Water Station #1 Contamination Superfund Site (Site) and to request that the Office of Superfund Remediation and Technology Innovation (OSRTI) remove from SEMS the policy FYR due in FY 2018 for the Site.

Background

The Vancouver Water Station #1 Contamination Superfund Site (EPA ID: WAD988519708) is located in Waterworks Park near the center of the City of Vancouver, Washington. Water Station #1 (WS1) is a public water supply wellfield made up of ten ground water production wells, five air-stripping towers and a holding reservoir. Groundwater is pumped from approximately 200 feet below ground surface and blended with water from several other wellfields to provide drinking water to approximately 230,000 people in the Vancouver region.

In 1988, pursuant to Safe Drinking Water Act (SDWA), the City of Vancouver (City) began monitoring volatile organic compounds (VOCs) in water supplied from all of its water stations. These tests found tetrachloroethylene (PCE) to be present in several of the WS1 wells at levels above the maximum contaminant level (MCL) established under the SDWA. The City notified the public and modified the pumping rates at individual wells so that PCE levels in the drinking water delivered to customers was consistently below the MCL.

In 1989 and 1990, extensive soil gas surveys and ground water studies were conducted by the City of Vancouver and EPA. No pattern was found in the soil or groundwater data that might indicate the location of the potential source of PCE. Based on these results, EPA concluded that the likelihood of identifying a significant source was low and that further investigation into source identification was not warranted.

A baseline risk assessment quantified the potential risks to future residents consuming untreated water ranged to be from 1E-06 to 6E-06 (1 to 6 excess cancers in 1,000,000 people). While this level of risk was within the National Contingency Plan (NCP) acceptable risk range, EPA found it was necessary to take action at WS1 because the groundwater at several production wells had been shown to have persistent concentrations of PCE above the MCL. On June 23, 1993, EPA proposed WS1 for listing on the National Priorities List (NPL) (58 FR 34018). The NPL listing for the site (WAD988519708) was finalized on May 31, 1994 (59 FR 27989).

The City installed five air stripping towers and started treatment in 1993. Groundwater is pumped at a rate between 8 and 19 million gallons per day, treated by the air strippers and distributed to customers as drinking water. Regular monitoring of the PCE levels in the groundwater and drinking water has been performed by the City. The treatment has reduced the PCE levels in the drinking water to below detectable levels, thus eliminating the threat posed to human health from exposure to PCE in drinking water.

A September 11, 1998 Record of Decision (ROD) required continuation of groundwater extraction, treatment and monitoring until such time as the PCE concentrations at all monitoring locations were below the MCL of 5.0 micrograms per liter ($\mu\text{g/L}$). A 2017 review indicated that PCE concentrations at all but one of the wells had been below the cleanup level of 5 $\mu\text{g/L}$ since 2013. In addition, a statistical analysis of data collected from the final well indicated attainment of the cleanup level at that well. Based on this evaluation, EPA determined that all remedial activities at the Site were complete and that no further CERCLA remedial actions were required.

A Preliminary Close Out Report documenting the completion of construction activities was signed by EPA on September 25, 1998. The Site was identified as "Sitewide Ready for Anticipated Use" on September 28, 2012. A Final Close Out Report documenting completion of all remedial activities was signed by EPA on April 27, 2017.

Five-Year Review Requirement

Three policy five-year reviews have been completed at the Site, the last one in September 2013. No issues or follow-up actions were identified during the 2013 Five Year Review. The protectiveness statement stated "The remedy at Vancouver WS1 is protective of human health and the environment because the treatment system is functioning as intended and human and ecological risks are under control. Long-term protectiveness of the remedial action will be verified by regular monitoring by the City of Vancouver."

Rationale for No Further Five-Year Reviews

The EPA Region 10 will not be conducting a fourth FYR because the groundwater at all wells at the Site have attained the ROD cleanup goal for PCE of 5.0 $\mu\text{g/L}$. As documented in the 2017 Final Close Out Report, the Remedial Action Objectives (RAOs) for the remedy have been achieved and there are no hazardous substances, pollutants or contaminants that remain above levels that could prevent unlimited use and unrestricted exposure (UU/UE). Therefore, no further five-year reviews are required.

Conclusion

The April 27, 2017 Final Close-Out Report documents that the implemented remedy achieves Remedial Action Objectives (RAOs) and the degree of cleanup or protection specified in the ROD for all pathways of exposure. All selected remedial and removal action objectives and associated cleanup levels are consistent with agency policy and guidance and no further Superfund response is needed to protect human health and the environment. In addition, there is no longer waste left on-site above levels that allow for UU/UE. Therefore, the EPA Region 10 has determined that no further FYRs are required and requests that the policy FYR due in FY 2018 for the Vancouver Water Station #1 Contamination Superfund Site be removed from SEMS.

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