



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
AIR, WASTE AND TOXICS

OCT 07 2011

Jerry Bartlett
Vice President, Northwest EnviroService Inc.
Vice President, Emerald Services Inc.
7343 E. Marginal Way South
Seattle, Washington 98018

**Re: Final Remedy Selection and Response to Comments
Northwest EnviroService Inc. Airport Way Facility
Administrative Order on Consent (AOC) under the Resource Conservation and
Recovery Act (RCRA)
U.S. EPA Docket No. 1093-02-09-3008(h)
WAD 05836 7152**

Dear Mr. Bartlett:

The U.S. Environmental Protection Agency, Region 10 (EPA) has selected the final remedy for the former Northwest EnviroService Inc. (NWES) Facility pursuant to the above referenced Order. The Final Remedy Selection and Response to Comments are enclosed.

The public was provided an opportunity to comment on the proposed remedy from June 17, 2011 to August 1, 2011. The EPA did not receive a request for a public meeting. The EPA received one comment letter from one of the property owners. The comments are contained in the enclosed Final Remedy Selection and Response to Comments (Enclosure). This letter and Enclosure will be made available to the public via the EPA web page for the NWES Facility.

The EPA is selecting the preferred alternative for the reasons discussed in the Statement of Basis. The selected remedy, Alternative 2, consists of excavation of the vanadium hot spot combined with restrictive covenants. NWES must use Figure 2-2 of the Corrective Measures Study (CMS) to establish the list of groundwater contaminants in the final restrictive covenants. Exception, chloroethane (also known as ethyl chloride) and thallium do not have to be listed as groundwater contaminants, based on changes to Washington's risk-based cleanup levels. Historic chloroethane results are all below the current EPA Regional Screening Level (RSL) for tap water. Historic thallium results are above the current EPA RSL for tap water but are all below the EPA Maximum Contaminant Level for drinking water.

The EPA has selected Alternative 1 as a contingent remedy. If the selected remedy is not successful in removing all contamination above the final industrial cleanup standards (see Table 1), NWES must implement Alternative 1. Alternative 1 requires engineering controls in the form of perpetual maintenance of pavement to contain soil contaminated above final industrial cleanup standards.

In accordance with paragraph 22.3 of the Order, within 30 days after EPA's selection of corrective measure(s), pursuant to paragraph 7.19 of the Order, Respondent shall submit to EPA a revised corrective action cost estimate. Paragraph 7.19 of the Order indicates that at the time of EPA's approval of the CMS Report, EPA will notify Respondent of the final cleanup and performance standards and approved corrective measure(s). EPA's approval of the CMS Report is being transmitted under separate cover.

In accordance with paragraphs 22.3 and 7.19 of the Order, within 30 days of receipt of this letter and the letter approving the CMS Report, Respondents must submit a revised cost estimate for any remaining corrective action work required for the corrective measure(s) selected by EPA. In accordance with paragraph 22.8 of the Order, if the revised cost estimate increases the amount of corrective action financial assurance currently being provided for the NWES Facility, additional financial assurance must be provided within 30 days of the cost estimate revision.

It is EPA's understanding that Emerald Services Inc, currently operating a non-hazardous waste and used oil recycling facility at the location of the former NWES Facility, maintains pavement at the site. Financial assurance for perpetual maintenance of pavement will be required in the event the contingent remedy selected by EPA is implemented. EPA cannot rely on continued voluntary best management practices of a company not bound to the Order. Respondent's revised corrective action cost estimate must identify the costs for maintenance of pavement in the area(s) requiring implementation of Alternative 1.

If you have any questions, please contact me by phone at (206)553-4323 or by email at castrilli.laura@epa.gov or your attorney may contact Elizabeth McKenna at (206)553-0016.

Sincerely,



Laura Castrilli
RCRA Corrective Action and Permits Team
Office of Air, Waste and Toxics

Enclosure

cc: Adam Hasson, Senior Property Manager, Samis Land Co.
Edward Benshoof, Puget Properties LLC
J. Stephan Banchemo, Jr., President, Western Tank Properties
J. Stephan Banchemo, Jr., Western Blower Associates LLC
J. Stephan Banchemo, Jr., President and Chief Executive Officer, Emerald Services
Byung Maeng, Ecology NWRO
Rachel Chang, CH2M Hill

U.S. Environmental Protection Agency, Region 10
FINAL REMEDY SELECTION AND RESPONSE TO COMMENTS

NORTHWEST ENVIROSERVICE INC.
EPA ID No: WAD 05836 7152
Seattle, Washington

INTRODUCTION

On June 17, 2011, the United States Environmental Protection Agency, Region 10 (EPA) issued a Statement of Basis for Remedy Selection for the former Northwest EnviroService Inc. (NWES) hazardous waste management Facility. The Statement of Basis was issued pursuant to the Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent 1093-02-09-3008(h). The Statement of Basis discussed proposed decisions regarding the appropriate media cleanup standards and corrective measures for the soils and groundwater in the northern portion of the NWES Facility. A public comment period was held from June 17, 2011 to August 1, 2011.

Land use at the NWES Facility and adjacent parcels has been industrial for decades. Beacon Hill, the nearest residential neighborhood is 800 feet east, separated from the facility and surrounding industrial area by a steep hillside, Interstate 5 and trees. Given the historic use as a hazardous waste storage and treatment facility and current use as a non-hazardous waste and used oil recycling facility, the EPA has established soil cleanup standards suitable for continued industrial use of the NWES Facility.

Based on data presented in the RCRA Facility Investigation (RFI) Report, the EPA concluded that cleanup standards based on protection of groundwater or surface water would not be applicable. The shallow groundwater beneath the NWES Facility consists of a thin saturated perched unit that has been impacted by historic operations. This saturated unit is bounded below and to the west (down gradient) by a low permeability clay unit and contains insufficient shallow groundwater beneath the NWES Facility to be used as a drinking water source. Contaminated shallow groundwater from this unit should never reach the nearest downgradient surface water located a mile to the west. RFI data show that contamination from the facility has not impacted the lower aquifer.

The EPA therefore is not establishing cleanup standards for groundwater and is not requiring long-term groundwater monitoring for this remedy. In order to ensure that groundwater use does not change in the future, the EPA is requiring that a restrictive covenant be placed on the titles to the property parcels. The restrictive covenant will prohibit the use of groundwater beneath the NWES Facility.

Restrictive covenants run with the land regardless of any future changes in ownership. Section 3 of the draft restrictive covenant also prohibits any activity on the property that may create a new exposure pathway, without prior written approval from Washington State Department of Ecology (Ecology).

SELECTED MEDIA CLEANUP LEVELS

The EPA has established the following final cleanup standards for contaminants of concern (COCs) suitable for continued industrial use of the former NWES facility.

Contaminant of Concern in soil	Industrial Use Soil Cleanup Standard (mg/Kg)
Benzo[a]anthracene	21
Benzo[a]pyrene	2.1
Benzo[b]fluoranthene	21
Benzo[k]fluoranthene	180
Indeno[1,2,3-cd]pyrene	21
Total Carcinogenic PAHs (cPAHs) ¹	18
Antimony (total)	410
Arsenic (total)	88
Chromium (hexavalent)	56
Vanadium	72

1. In addition to meeting the final cleanup standards for individual constituents the NWES Facility must meet the Total cPAH concentration. Total cPAH is calculated by multiplying individual constituent concentrations for seven cPAHs by the corresponding Toxicity Equivalency Factor (TEF) to adjust for relative toxicity and summing the results. See *Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors*, Washington State Department of Ecology, available at: <https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf>

SELECTED CORRECTIVE MEASURES

Selected Remedy: Alternative 2

The selected corrective measure requires excavation of the vanadium hot spot combined with restrictive covenants. Excavated contaminated soils, after characterization for disposal, must be disposed of at an appropriate off-site facility. Restrictive covenants are required because the soil cleanup standards are for industrial land use and the shallow perched aquifer is contaminated.

Contingent Remedy: Alternative 1

Given the proximity of a subsurface stormwater conveyance from Interstate 5, it is possible that not all contaminated soils containing vanadium above the industrial cleanup standard can be practicably removed. The active tank farm to the south of this area may also be an impediment to complete removal of contaminated soils. If Alternative 2 cannot be completely implemented and contaminated soils remain at the Facility, EPA is requiring that Alternative 1 be implemented. Alternative 1 is also required in areas of chromium contamination if it cannot be demonstrated that the chromium is the less toxic trivalent form. If chromium is shown to be in the hexavalent form, the EPA may require additional work to consider corrective measures for hexavalent chromium.

This contingent remedy requires containment of contaminated soils through engineering and institutional controls in areas that exceed the final industrial cleanup standards (Table 1). NWES must also provide sufficient financial assurance to ensure maintenance of Alternative 1.

PUBLIC PARTICIPATION ACTIVITIES

A public comment period was held from June 17, 2011 to August 1, 2011. The EPA did not receive a request for a public meeting. The EPA received one comment letter from a representative of Samis Land Company, one of the property owners. The comments are summarized in Attachment 1.

The EPA was also called by Edward Benshoof of Puget Properties LLC, owner of one of the parcels originally identified in the CMS Report as being partially within the footprint of the portion of the former NWES Facility that requires corrective action. Subsequent to being contacted by Mr. Benshoof, the EPA required submittal of a list of parcel numbers with corresponding parcel owners, a detailed parcel map of the Facility, and a certification for the CMS Report. The September 26, 2011 response from NWES indicates that there were errors in the King County parcel information available on-line and that Puget Properties parcel 3881900050 is not within the area of the NWES Facility that requires corrective action.

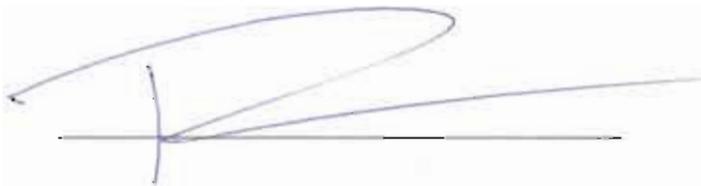
FUTURE ACTIONS

In accordance with paragraph 7.20 of the Order, NWES will prepare and submit a Corrective Measures Implementation (CMI) Work Plan to implement the selected remedies within 60 days of issuance of this decision and EPA acceptance (approval) of the CMS. In addition to the CMI Work Plan, NWES will complete all permitting and other requirements as necessary to complete the implementation of the Plan.

Following the satisfactory completion of all required field work, each parcel owner must complete and record the Environmental Restrictive Covenant for each parcel subject to this remedy decision.

DECLARATIONS

Based on the administrative record compiled for this corrective action, I have determined that the selected remedy to be ordered at the former Northwest EnviroService Inc. Facility is appropriate and will be protective of human health and the environment.



Richard Albright, Director
Office of Air, Waste and Toxics
EPA Region 10

October 7, 2011 Date

RESPONSE TO COMMENTS

Below are comments received from Mr. Adam Hasson, Senior Property Manager, Samis Land Company, one of the NWES parcel owners. Below each comment is the EPA's response.

Comment 1:

We support Alternative 2 as the more permanent and aggressive cleanup alternative. As property owner, we are concerned about the future marketability of this property if contaminants at levels exceeding industrial use cleanup standards still remain at the property. We are also concerned about the desirability on the marketplace of a property for which environmental covenants require perpetual maintenance of the pavement - the option considered under Alternative 1.

EPA Response:

Note that the vanadium contamination above the industrial cleanup standard is not on the parcel owned by Sammis Land Company. Maintenance of pavement would only be required for this parcel in the event chromium is in the more toxic hexavalent form. Two surface soil sample locations located on the Sammis Land Company parcel are above the industrial hexavalent chromium cleanup standard.

Comment 2:

The EPA materials suggest that additional cleanup of areas contaminated with chromium may be required, if it is determined that highly toxic hexavalent chromium is present. We ask that the EPA continue to closely monitor the chromium data results. For the same reason that we support the excavation of vanadium we would support targeted excavation of hexavalent chromium, if it is encountered at the site.

EPA Response:

As indicated in the final decision document Alternative 1 is required in the event sampling indicates that chromium is present in the hexavalent form. If chromium is shown to be in the hexavalent form, the EPA may require additional work to consider corrective measures for hexavalent chromium.

Comment 3:

It is our understanding that with the exception of the vanadium, and possibly the chromium, there is no other contamination at the site that exceeds industrial use cleanup standards. However, to the extent any additional active remediation is determined necessary at the site in order to achieve the cleanup levels, we ask that this be required.

EPA Response:

The EPA's Statement of Basis notes that one arsenic soil sample slightly exceeds the industrial cleanup standard. Pursuant to Washington Administrative Code (WAC) 173-340-740 (7) (e) criterion for determining compliance with soil cleanup levels, the NWES Facility is in compliance with the arsenic soil cleanup level. Note, the EPA did not establish cleanup standards for groundwater as the contaminated shallow aquifer is an isolated perched aquifer of insufficient volume for drinking water use. Some of the groundwater contamination exceeds Ecology Model Toxics Control Act (MTCA)

Method C (industrial use) groundwater cleanup levels. Figure 2-2 of the NWES CMS shows groundwater contamination that exceeds MTCA Method B (unrestricted use) groundwater cleanup levels. Some of the MTCA Method B criteria were recently revised and due to this revision, chloroethane and thallium will not be listed as groundwater contaminants in the final restrictive environmental covenants.

Comment 4:

Finally, we request that the EPA keep us regularly apprised of any material developments at this site. As the owner of the property, this cleanup and the results of the cleanup will directly impact the value of our asset.

EPA Response:

EPA will notify all property owners of any determination of "Corrective Action Complete". EPA will also copy you on all correspondence regarding implementation of the selected remedies. We encourage you to coordinate directly with NWES and request that they provide you with copies of work plans and/or sampling results.

