

**PB96-963106
EPA/ESD/R01-96/127
September 1996**

**EPA Superfund
Explanation of Significant Difference
for the Record of Decision:**

**Commencement Bay, Nearshore/Tideflats
Operable Unit 2, Pierce County, WA
7/2/1996**



**EXPLANATION OF SIGNIFICANT DIFFERENCE
TO THE ASARCO TACOMA SMELTER FACILITY
RECORD OF DECISION
RUSTON AND TACOMA, WASHINGTON**

A. Introduction

1. Site name and location: Former Asarco Tacoma Smelter Facility and Slag Peninsula (the "Site"), Operable Unit 2 of the Commencement Bay Nearshore Tidelands Superfund Site, Ruston and Tacoma, Washington.
2. Lead Agency: U.S. Environmental Protection Agency (EPA).
3. Support Agency: State of Washington, Department of Ecology.
4. Legal authorities for cleanup action: The Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA), 42 U.S.C. § 9601, et seq., and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), 40 C.F.R. Part 300.

B. Summary of Site History, Contamination Problems, and Selected Remedy

ASARCO, Inc. (Asarco) has owned and/or operated the Asarco Tacoma Smelter property since 1905. Asarco used the property initially as a lead smelter and refinery, and converted it in 1912 into a facility to smelt and refine copper from copper-bearing ores and concentrates shipped in from other locations. Slag, a black, rock-like, by-product of Asarco's copper smelting operations was either used by Asarco as a fill to extend the shoreline of the Site or sold to local entities and companies for their use as fill. Asarco closed the Smelter in 1985.

Past smelter operations and emissions resulted in releases of hazardous substances, including arsenic and other heavy metals, at and in areas surrounding the smelter. Metals that are in the slag or soil have migrated to surface and ground water at the Site. Ores which were smelted at the Site left metals in the buildings and structures on the Site, most of which were removed pursuant to the Asarco Demolition Consent Decree in May 1992.

EPA issued the Record of Decision (ROD) for the final remediation of the Site in March 1995. EPA determined that cleanup actions were necessary because current conditions on the Site posed unacceptable risks over the long-term to future residents, potential workers, and visitors and to the ground water discharging to Commencement Bay.

One critical component of the ROD is construction of a RCRA-compliant On-Site Containment Facility (OCF). Pursuant to the ROD, the OCF will contain the Site's RCRA characteristic source area soils, granular fill and demolition debris. The OCF's liner, cap, leak detection, collection and removal system, leachate collection and removal system and surface run-on and run-off control systems are required to meet federal and state standards for a hazardous waste landfill. The ROD states that the OCF shall be constructed "northeast of the arsenic kitchen area." ROD, Section 9.1.2 (a).

C. Summary of the Explanation of Significant Difference to the Asarco Tacoma Smelter Facility Record of Decision

EPA has selected a new, on-site location for the OCF after extensive review and exploration of the original OCF location identified in the ROD. Asarco, with EPA approval, investigated subsurface conditions of the proposed OCF location between May and July, 1995. The investigation revealed that the OCF location identified in the ROD was unacceptable in its existing state.

Data from the investigation showed the proposed OCF location was underlain by a buried alluvial valley, partially filled with loose sands and silts, and partially by soft clay and peat. The investigation revealed that the sandy and silty materials are likely to liquify in the event of a severe seismic event, resulting in slope spreading and settlement. In addition, the side slopes of the buried alluvial valley appear to be rather steep, and differential settlement could cause severe local deformation and stress to liners and collection systems. Furthermore, clayey and silty alluvial deposits may result in excessive settlement under the load of the OCF or bearing capacity failure. Bearing capacity failure would cause large shear strains that would severely damage the OCF.

Due to the high seismic risk of the area, and the excessive risk posed by potential bearing capacity failure, settlement and slope spreading, EPA determined that further geotechnical investigation was required to find an alternative OCF location. Asarco performed additional field investigation and laboratory testing in the parking lot area of the site, off Bennett Street, in September 1995. Preliminary analysis indicated that this area was geotechnically acceptable, and not subject to bearing failure, excessive settlement or slope instability. As a result, EPA has selected this area as the new location for the OCF.

D. Public Participation Activities

EPA held two public comment periods from September 20, 1995, to November 20, 1995 on moving and changing the location of the OCF from northeast of the arsenic kitchen area to the parking lot area off Bennett Street (see Superfund Fact Sheets included as

Attachments 1 and 2). The attached Fact Sheets were distributed to the Asarco mailing list of approximately 800 individuals. In addition, the Fact Sheets were made available for public review at the information repositories listed on the back page of the Fact Sheets (see Attachments 1 and 2). EPA and Asarco also sponsored community meetings where the geotechnical information and relocation of the OCF were discussed. EPA did not receive any written comments in response to the public comment periods, and participants at the community meetings did support changing the OCF's location based on Asarco's findings.

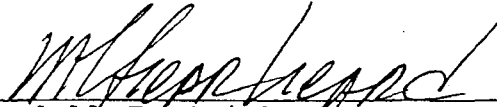
E. Administrative Record

This ESD, the attached Fact Sheets, the Record of Decision, the Asarco geotechnical reports and other reports and information related to the Asarco Tacoma Smelter Site are part of the administrative record for the Site. The administrative record is available for public review at the following locations:

1. In Seattle: Environmental Protection Agency
1200 Sixth Ave.
2. In Tacoma: Tacoma Public Library
Main Branch
1102 Tacoma Avenue South
Northwest Room

F. Affirmation of Statutory Determinations

Considering the new information that has developed and the change that has been made to the selected remedy, EPA believes that the remedy remains protective of human health and the environment, complies with federal and state requirements that were identified in the ROD as applicable or relevant and appropriate to this remedial action, and is cost-effective. In addition, the remedy continues to utilize permanent solutions and alternative treatment technologies to the maximum extent possible, as described in more detail in the Declaration of the Record of Decision, page v.



Randall F. Smith
Director, Office of Environmental Cleanup

Citizens for a Healthy Bay
771 Broadway

Pacific Lutheran University Library
121st and South Park Avenue

In Ruston:

Ruston Town Hall
5117 Winnifred

In Olympia:

Washington Department of Ecology
300 Desmond Drive SE

In Seattle:

Environmental Protection Agency
1200 Sixth Avenue

Questions?

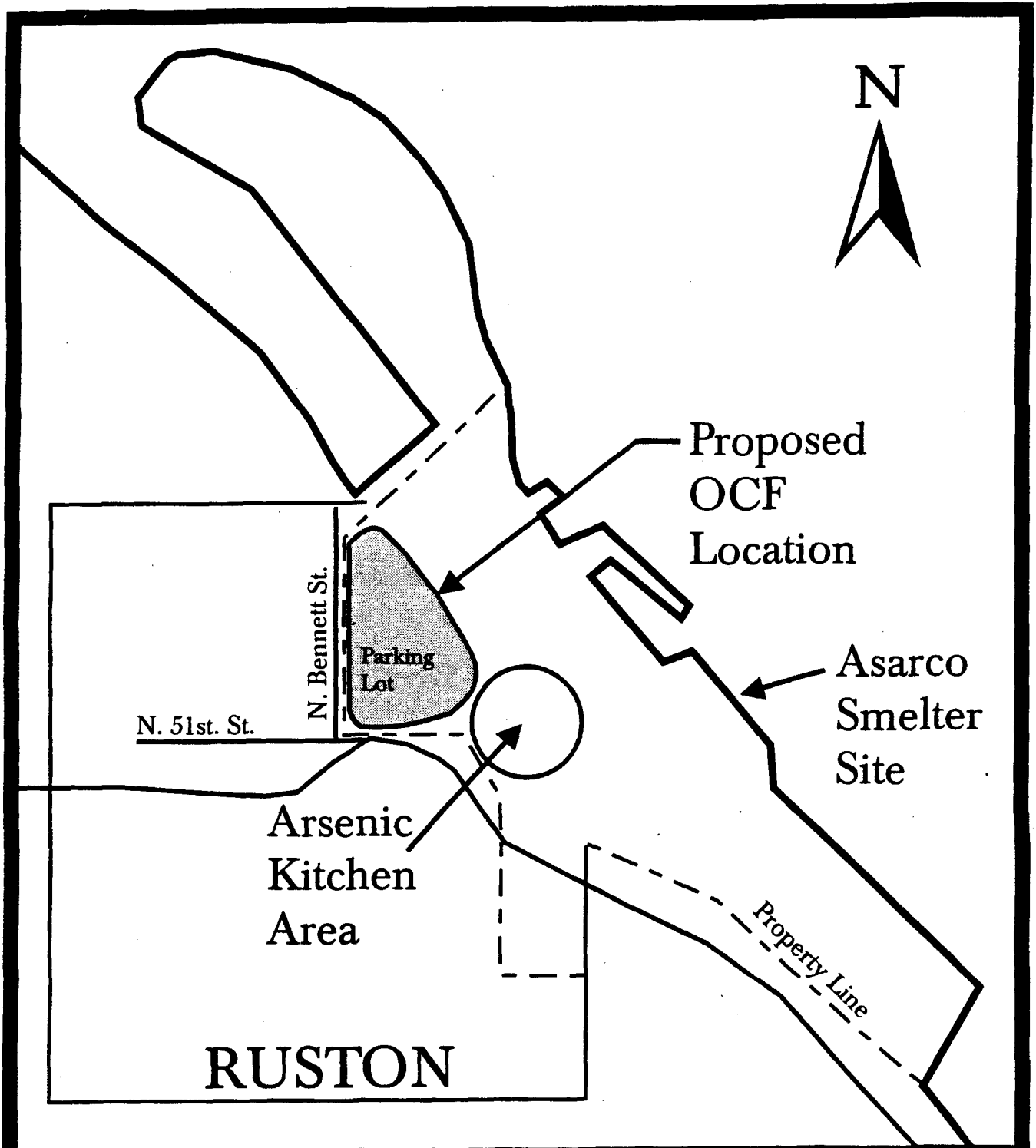
If you have questions or would like more information, please feel free to contact one of the following EPA representatives toll free in Seattle at 1(800)424-4EPA, or as indicated below:

Piper Peterson Lee
Project Manager
(206)553-4951

Jeanne O'Dell
Community Relations Coordinator
(206)553-6919

For those with impaired hearing or speech, please contact EPA's telecommunication device for the deaf (TDD) at (206)553-1698.

To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting one of the numbers listed above.



Proposed OCF Location



United States
Environmental Protection
Agency

Region 10 (HW-117)
1200 Sixth Avenue
Seattle WA 98101

***Superfund Fact Sheet
Former Asarco Smelter Site***



September 20, 1995

Superfund Fact Sheet

Former Asarco Smelter Site Ruston and Tacoma, Washington

Update on Negotiations Between the U.S. Environmental Protection Agency (EPA) and Asarco on the Former Smelter Site

EPA and Asarco began negotiations on the cleanup plan in August 1995. The plan includes cleaning up contaminated soil, slag, and surface water, including disposal of highly contaminated soil, without treatment, in an on-site containment facility (OCF) on the former Asarco Smelter site.

One requirement for constructing the OCF was to determine that it was safe in the event of an earthquake. Seismic test results revealed that the location identified is not safe and another location must be found. The current plan would put the OCF on top of an ancient riverbed filled with sands, silt, clay, peat and slag. Settling could cause the OCF to sink, damaging the liners and the safety detection measures. And in a severe earthquake, the ground under the OCF could liquify, settle and shift, causing severe damage to the structure.

Asarco is currently evaluating alternate locations for the OCF. Asarco is collecting information about the ground beneath the parking lot area to determine whether it would be a suitable location. If it is not, other areas will be evaluated.

EPA will be taking comments through October 20, 1995, on any concerns or questions you may have about moving the OCF. Please send your comments to Piper Peterson Lee, EPA Remedial Project Manager, 1200 Sixth Avenue - MS/HW-113, Seattle, Washington 98101.

Changing the OCF location may open up some interesting new public benefits without compromising the master land use plan that the public helped develop during the Asarco Weeks held in 1994. An Asarco Week will be held in mid-October to discuss the changes and get public comment. Asarco will notify community members of that meeting.

More Information

The Remedial Design Reports (RDRs) that Asarco is submitting to EPA are being added to the information repositories for your review and comment. The first and second batch of RDRs are available. The third batch, entitled infrastructure and transportation, will be available on September 27th. It describes the process to determine how the utilities, roadways, and other elements of future land use will be tied into the cleanup activities. It also describes the process to determine the timing of road closures and other transportation issues.

What's Next

EPA and Asarco will complete negotiations that includes an alternate location for the OCF. Once an agreement on the proposed Consent Decree and Statement of Work have been reached, another 30-day public comment period will be offered.

Questions?

If you have questions or would like more information, please feel free to contact one of the following EPA representatives toll free in Seattle at 1(800)424-4EPA, or as indicated below:

Piper Peterson Lee
Project Manager
(206)553-4951

Jeanne O'Dell
Community Relations Coordinator
(206)553-6919

For those with impaired hearing or speech, please contact EPA's telecommunication device for the deaf (TDD) at (206)553-1698.

To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting one of the numbers listed above.



United States
Environmental Protection
Agency

Region 10 (HW-117)
1200 Sixth Avenue
Seattle WA 98101

Superfund Fact Sheet
Former Asarco Smelter Site