

STATE OF WASHINGTON  
DEPARTMENT OF WASHINGTON

In the Matter of Remedial	)	Enforcement Order
Action by:	)	
	)	
ASARCO Incorporated	)	No. DE 92TC-N147
P.O. Box 1677	)	
Tacoma, Washington 98401	)	

To: Asarco Incorporated  
P.O. Box 1677  
Tacoma, Washington 98401

I.

Jurisdiction

This Order is issued pursuant to the authority of RCW 70.105D.050(1).

II.

Statement of Facts

1. The area in this matter is known as the "Everett Smelter" Site. The Site is located in Everett, Washington and is centered near the intersection of East Marine View Drive and State Route 529. A map of the general area is attached as Exhibit A. The Site includes residential and industrial areas and a major interchange. This area is the

former location of a smelter that existed on the Site between approximately 1893 and 1914. The exact boundaries of the Site have yet to be determined because the extent of the area affected by the smelter has not been clearly defined.

2. The smelter property included an area of about 44 acres. Some of the primary structures at the smelter included 8 railroad spurs, a sulfide mill, furnace and roaster buildings, flues and dust chambers, and two 100+ foot high smoke stacks. At the turn of the century, the smelter was one of the largest industrial facilities in Everett, employing up to 125 people.

3. In 1893, the Puget Sound Reduction Company began operating the smelter, refining ores primarily from the Monte Cristo mining district. Ores were delivered to the smelter by rail to be refined for lead, copper, gold, and silver. The smelter produced pig lead, most of which was shipped to Japan and China. The lead smelter operated until May 1907. Lead ore was refined on the Site until 1908.

4. Some of the ore from the Monte Cristo mining district contained over 25 percent total arsenic. To recover arsenic from the ore, an arsenic processing plant was constructed on the southern end of the Site. The plant consisted of several structures, including additional smoke stacks and flues, ovens and mills, and a large arsenic processing building. The plant operated from approximately

1898 until 1913.

5. In 1903, Asarco bought and began operating the smelter until it was dismantled in 1914. It is unclear how or when the smelter structures were razed. However, it is known that some of the arsenic processing equipment was salvaged and used in the Asarco smelter in Ruston, Washington.

6. Asarco sold the smelter property through a series of transactions that occurred between 1914 and 1936. The transactions are listed in the following table. The number of acres listed for each transaction is an approximation.

Year	No. of Acres	Property Sold To:
1914	1.32	Weyerhaeuser
1914	.92	Snohomish County
1916	.11	Mr. & Mrs. Cook
1924	4.19	State of Washington
1924	1.66	Weyerhaeuser
1924	10.28	Weyerhaeuser
1928	17.89	Mr. Spriestersbach
1932	6.01	Model Transfer & Storage
1936	6.01	City of Everett

The acreage bought by the State of Washington is now the interchange between East Marine View Drive and State Route 529. The 17.89 acres bought by Mr. Spriestersbach was developed into residential neighborhoods. There are

presently about 25 houses built directly on the former smelter property, all of which are west of East Marine View Drive. Weyerhaeuser and Burlington Northern Railroad presently use the area east of East Marine View Drive for industrial and railroad purposes. Mr. Boyd Benson also owns approximately 5 acres of the industrial area along East Marine View Drive. Since the 1950s, the Benson property has been used for a rock wool insulation plant, which processed smelter slag left on the Site, into insulation; a scrap metal yard, and most recently a bark and topsoil facility. The Benson property is currently vacant.

7. In 1990, an outcropping of slag was discovered on the hillside below East Marine View Drive. The slag was discovered during an environmental investigation being conducted by Hart-Crowser for Weyerhaeuser. As part of the investigation, slag, soil, and ground water samples were collected on Weyerhaeuser property and analyzed for the presence of heavy metals. After receiving the data, Weyerhaeuser notified Ecology in a letter to Mr. Greg Bean, dated October 30, 1990, that a release of a hazardous substance had occurred at the Site.

8. Ecology conducted an initial investigation of the Site in December 1990. The investigation included a Site visit, historic research of the area, and review of the data previously submitted by Weyerhaeuser.

9. Ecology conducted a Site Hazard Assessment (SHA) of the Site in February 1991. The SHA consisted of a magnetics survey, to attempt to locate the extent of buried slag, and collection of 20 surface soil samples that were analyzed for metals. Laboratory analysis demonstrated releases of arsenic, cadmium, and lead to the soil found in residential areas on the Site.

10. Ecology conducted a "Pre-Remedial Investigation" (Pre-RI) in May 1991. The Pre-RI consisted of the preparation of a Site map and collection of 285 additional soil samples. The purpose of the investigation was to further characterize the nature and extent of elevated concentrations of residual metals that was identified in the SHA. Results of the Pre-RI confirm releases of arsenic, cadmium, and lead in surface soils throughout the study area. The highest concentrations were detected in areas where the former smelter structures once stood. Generally, the concentration of the three metals in the soil decreases with increased distance from the former smelter property. The range of concentrations of the three metals detected in the soil are listed in the following table. All values shown are in parts per million, or milligrams per kilogram.

Metal	Range Detected at Site
Arsenic	1.4 - 53,100 mg/kg
Cadmium	ND - 137 mg/kg
Lead	ND - 8,870 mg/kg

Note: ND indicates Non Detected

11. There are areas of exposed soil throughout the Pre-RI study area, mainly in flower beds, vegetable gardens, and an unpaved alley. Some of these features are located in areas where the highest soil contamination was detected. Soil potentially provides a direct exposure route to people on the Site.

12. Based on the analytical data submitted with the letter referenced in item No. 7, there is evidence of arsenic and lead in the ground water.

13. Based on the analytical data collected during the SHA and Pre-RI, there is evidence of arsenic, cadmium, and lead in the soils.

### III.

#### Ecology Determinations

1. Asarco is a former "owner or operator" as defined at RCW 70.105D.020(6) of a "facility" as defined in RCW 70.105D.020(3). As described in RCW 70.105D.040(1)(c), Asarco formerly "owned or possessed" a hazardous substance and "arranged for disposal" of that hazardous substance at

the facility. Asarco is also a "generator," as described in RCW 70.105D.040(1)(c), of a hazardous waste which was disposed of, or has otherwise come to be located, at the "facility."

2. The facility is known as the Everett Smelter Site and is located in the area around the intersection of State Route 529 and East Marine View Drive in Everett, Washington. This area is shown in a Site map which is attached as Exhibit A.

3. The substances found at the facility as described above are "hazardous substances" as defined at RCW 70.105D.020(5).

4. The presence of these hazardous substances at the facility constitutes a release as defined at RCW 70.105D.020(10).

5. By letter dated August 29, 1991, Ecology notified Asarco of its status as a "potentially liable person" under RCW 70.105D.040 after notice and opportunity for comment.\*

6. Pursuant to RCW 70.105D.030(1) and 70.105D.050, the Department may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

7. Based on the foregoing facts, Ecology believes the

remedial action required by this Order is in the public interest.

IV.

Work to be Performed

1. Based on the foregoing Facts and Determinations, it is hereby ordered that Asarco perform the following remedial actions. These remedial actions shall be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein.

2. Based on the results of investigations to date, Ecology has determined that interim actions are appropriate and warranted at the Site. Interim actions are necessary to reduce the threat to human health by eliminating or substantially reducing the potential for exposure to known high levels of arsenic, cadmium, and lead in the surface soils. Asarco shall perform interim actions according to the interim action scope of work and schedule attached to this Order as Exhibit B. Exhibit B is incorporated by this reference and is an integral and enforceable part of this Order. Asarco shall prepare draft and final interim action work plans pursuant to WAC 173-340-430. The interim actions work plan shall detail the necessary actions which are intended to adequately address the threat or potential threat posed by the release or threatened release of hazardous substances at the Everett Smelter Site. Asarco shall submit



draft and final interim action work plans to Ecology for review and approval.

3. Asarco shall conduct interim actions pursuant to the final work plan approved by Ecology. Any interim actions chosen for the Site will be subject to public notice. It is not anticipated that an interim action will constitute a substantial majority of the final cleanup action likely to be selected.

4. Additional work is required to characterize the nature and extent of residual metals in the soil and ground water at the Site. The required work shall be carried out according to the scope of work and schedule attached to this Order as Exhibit C. Exhibit C is incorporated by this reference and is an integral and enforceable part of this Order. Asarco shall submit to Ecology draft and final remedial investigation work plans pursuant to WAC 173-340-350 for review and approval. Following the approval of the final work plan, Asarco shall prepare and submit to Ecology monthly progress reports. These reports shall briefly explain all actions taken, any problems encountered, and progress made during the past month. The reports will be submitted in letter form to the Ecology site manager by the 10th of each month. Asarco shall submit monthly progress reports until the submittal of a draft RI/FS report.

5. Asarco shall complete a remedial investigation

pursuant to the final work plan approved by Ecology. Such investigations may reveal that further interim remedial action is needed at the Site. Any interim action chosen for the Site will be subject to public notice. It is not anticipated that any interim actions will constitute a substantial majority of the final cleanup action likely to be selected.

6. Asarco shall submit to Ecology draft and final remedial investigation reports. The reports shall contain information described in WAC 173-340-350. In addition, the report shall include a discussion regarding the completeness of the data. In the event that data gaps are identified, Asarco will be required to conduct supplemental remedial investigations in order to adequately characterize the Site. Any supplemental remedial investigations will be conducted in accordance with the requirements specified in this Order. If required, Asarco shall submit to Ecology draft and final supplemental remedial investigation work plans and reports for review and approval.

7. Asarco is required to perform an environmental and human health risk assessment to characterize the current and potential threats posed by the hazardous substances. Asarco shall submit to Ecology draft and final risk assessment reports for review and approval.

8. Asarco shall perform a feasibility study of

alternative remedial actions at the Site. Pilot or treatability studies may be required to evaluate various remediation options. Asarco shall submit to Ecology draft and final feasibility study reports for review and approval. The reports shall contain information described in WAC 173-340-350.

9. The performance schedule for the required remedial actions is included with the scope of work that is attached to this Order as Exhibit C. Ecology's failure to perform any obligation under this Order within the time specified in the schedule shall not excuse Asarco from performing any of its obligations under this Order.

V.

Terms and Conditions of Order

1. Definitions. Unless otherwise specified, the definitions set forth in Ch. 70.105D RCW and Ch. 173-340 WAC shall control the meanings of the terms used in this Order.

2. Public Notices. WAC 173-340-600(11) requires a 30 day public comment period before this Enforcement Order on a state RI/FS and interim actions becomes effective. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.

3. Reimbursement of Costs. Asarco shall pay to Ecology costs incurred by Ecology prior to the effective date of this Order and costs incurred by Ecology pursuant to this Order. These costs shall include work performed by Ecology and its contractors for investigations, remedial actions, order preparation, negotiations, oversight and administration. Ecology costs shall include costs of direct activities; e.g., employee salary, laboratory costs, travel costs, contractor fees, and employee benefit packages; and agency indirect costs of direct activities. Asarco shall pay the required amounts within 90 days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, the amount of time spent by involved staff members on the project. A general description of work performed will be provided upon request. Itemized statements will be prepared on a quarterly basis. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs may result in interest charges.

4. Designated Project Coordinators. The project coordinator for Ecology is:

Dave Nazy  
Toxics Cleanup Program  
Northwest Regional Office  
3190 160th Avenue SE  
Bellevue, Washington 98008-5452

The project coordinator for Asarco is:

Thomas L. Aldrich  
Asarco Incorporated  
P.O. Box 1677  
Tacoma, Washington 98401

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and Asarco, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the project coordinator(s). Should Ecology or Asarco change project coordinator(s), written notification shall be provided to Ecology or Asarco at least ten (10) calendar days prior to the change.

5. Performance. All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. Asarco shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors that are not under the direct supervision of a contractor, to be used in carrying out the terms of this Order, before their involvement at the Site.

Except where necessary to abate an emergency situation, Asarco shall not perform any remedial actions at the Everett

Smelter Site outside that required by this Order unless Ecology concurs, in writing, with such additional remedial actions.

WAC 173-340-400(7)(b)(i) requires that "construction" performed on the Site must be under the supervision of a professional engineer registered in the state of Washington.

6. Access. To the extent that the tasks required by this Order require access to land not owned by Asarco, Asarco shall use its best efforts to obtain access agreements for itself, its contractors and agents, Ecology and their contractors or agents, from the present owners or lessees as the need for such access may arise. Best efforts shall include, at a minimum, a certified letter from Asarco to the present owners of such property requesting access agreements to permit Asarco, Ecology and their authorized representatives to access such property. In the event Asarco is unable to obtain access under reasonable terms and conditions, Ecology may, consistent with its authority, assist Asarco in obtaining access.

Ecology or any Ecology authorized representative shall have the authority to enter and freely move about the Site at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress in carrying out the terms of this Order;

conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by Asarco. Ecology will provide reasonable notice to Asarco in advance that sampling will occur and will allow split or replicate samples to be taken by Asarco during an inspection unless doing so interferes with Ecology's sampling. Asarco shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice before any scheduled sampling activity and reasonable notice before nonscheduled sampling. "Reasonable notice" shall mean no less than 24 hours before sampling, provided that the party being notified may waive this time requirement; except in the case of stormwater runoff sampling whereupon "reasonable notice" shall mean a good faith effort to notify the other party as soon as practicable.

7. Lab Requirements and Data Submittal. All water quality analysis conducted under this Order shall be performed by a lab that is accredited by Ecology to perform such work unless Asarco is granted a waiver from Ecology's Waste Management Programs Assistant Director, . In accordance with WAC 173-340-840(5), Asarco shall submit ground water sampling data according to the Site Description and Sample Submittal Requirements attached as Exhibit D.

Exhibit D is incorporated by this reference and is an integral and enforceable part of this Order.

Upon request, Asarco shall provide to Ecology the laboratory deliverables listed in Exhibit E. Exhibit E is incorporated by this reference and is an integral and enforceable part of this Order.

8. Public Participation. Ecology is responsible for the public participation plan at the Site. Asarco shall assist Ecology in coordinating and implementing the plan at the Site. Asarco may undertake its own community relations activities provided that Asarco coordinates such activities with Ecology. Ecology will allow Asarco to review fact sheets, press releases, and public notices before the release of such information. In the event of disagreement over the contents of any document prepared by Ecology for the purpose of community relations, Ecology shall make the final decision about its content. In these instances, upon Asarco's request, Ecology will include a statement that these are solely the views of Ecology.

9. Retention of Records. Asarco shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work



performed hereunder be undertaken through contractors or agents of Asarco, then Asarco shall include in their contract with such contractors or agents a record retention requirement meeting the terms of this paragraph.

10. Dispute Resolution. Asarco may request Ecology to resolve factual or technical disputes that may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory to this Order. Ecology resolution of the dispute shall be binding and final. Asarco is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

11. Reservation of Rights/No Settlement. Ecology reserves all rights to issue additional orders or take any action authorized by law in the event or upon the discovery of a release or threatened release of hazardous substances not addressed by this Order, upon discovery of any factors not known at the time of issuance of this Order, in order to abate an emergency, or under any other circumstances deemed appropriate by Ecology.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances from the Everett Smelter Site.

12. Compliance with Other Applicable Laws. All actions carried out by Asarco pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements.

13. Revisions to the Scope of Work and Schedule. Revisions to the scope of work and schedule are anticipated as a result of data gathering and analyses. Requests by Asarco for changes to the scope of work shall be documented with written justification for the change and provided to Ecology for approval before implementing the change. A revision of the schedule shall be granted only for such period as Ecology determines is reasonable under the circumstances. A requested revision shall not become effective until approved by Ecology, which approval shall be confirmed in writing.

The burden shall be on Asarco to demonstrate to the satisfaction of Ecology that good cause exists for granting a revision. Good cause includes, but is not limited to the following:

1. Circumstances entirely beyond the control and despite the due diligence of Asarco such as difficulty in obtaining access to property not owned by Asarco;
2. Delays directly attributable to any changes in or need to comply with permit terms or conditions or to appeals on or lack of a permit, concurrence, or approval

needed to implement the terms of this Order, provided that Asarco filed a timely application for such a permit, concurrence or approval; and

3. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, earthquake, wave or water conditions, strikes or other labor disputes or other unavoidable casualty.

However, neither increased costs of performance of the terms of this Order, nor changed economic circumstances, nor unavailability of qualified personnel to perform work required by the terms of this Order, nor delays resulting from awaiting decisions from Asarco corporate headquarters shall be considered good cause for granting a revision. Any disagreement regarding requested changes shall be resolved by following the dispute resolution process.

#### VI.

##### Satisfaction of this Order

The provisions of this Order shall be deemed satisfied upon Asarco's receipt of written notice from Ecology that Asarco has completed the remedial activity required by this Order, as amended by any modifications, and that all other provisions of this Enforcement Order have been complied with.

#### VII.


##### Enforcement

1. Pursuant to RCW 70.105D.050, this Order may be enforced

as follows:

- A. The Attorney General may bring an action to enforce this Order in a state or federal court.
- B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.
- C. In the event Asarco refuses, without sufficient cause, to comply with any term of this Order, Asarco may be liable for:
  - (1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and
  - (2) civil penalties of up to \$25,000 per day for each day it refuses to comply.
- D. This Order is not appealable to the Washington Pollution Control Hearings Board. This Order may be reviewed only as provided under Section 6 of Ch. 70.105D RCW.

Effective date of this Order: April 20, 1992

  
Michael J. Gallagher  
Toxics Cleanup Program  
Section Supervisor, NWRO