

TABLE OF CONTENTS

HARBOR ISLAND - LOCKHEED SHIPYARD EXPLANATION OF SIGNIFICANT DIFFERENCES AR #2 (HLES2)

April 2, 2003

0.0 - TABLE OF CONTENTS/INDEX

1.0 - SEDIMENT REMEDIAL INVESTIGATION/FEASIBILITY STUDY

1.4 - Supplemental Sediment Investigation

1.11 - Supplemental Studies under 1998 AOC

1.11.1 - Comments

3.0 - ENFORCEMENT

3.1 - Administrative Order on Consent

4.0 - RECORD OF DECISION

4.1 - State Concurrence Letter

4.2 - Record of Decision

4.3 - Explanation of Significant Differences (ESD)

5.0 - REMEDIAL DESIGN

5.1 - Correspondence

5.5 - Sampling and Analysis Plan

5.6 - Design Reports

5.6.1 - Comments and Responses

HEADING: 0. 0. . . TABLE OF CONTENTS/INDEX

HEADING: 1. 0. . . SEDIMENT REMEDIAL INVESTIGATION/FEASIBILITY STUDY

SUB-HEAD: 1. 4. . . Vol. 1 - Supplemental Sediment Investigation

1. 4. . . Vol. 1 - 0001 DOC ID: 48960
DATE: 5/1/1996 PAGES: 214
AUTHOR(S): ADDRESSEE(S):
EVS Environment Consultants EPA

Harbor Island Sediment Work Group

DESCRIPTION: Harbor Island Sediment Operable Unit, Supplementary Remedial Investigation, Volume 1 of 2.

This document is included by reference only. A copy can be found in folder 1.4.6 of the West Waterway Sediments Administrative Record (HIAO4).

1. 4. . . Vol. 1 - 0002 DOC ID: 48961
DATE: 5/1/1996 PAGES: 876
AUTHOR(S): ADDRESSEE(S):
EVS Environment Consultants EPA

Harbor Island Sediment Work Group

DESCRIPTION: Harbor Island Sediment Operable Unit, Supplementary Remedial Investigation - Appendices, Volume 2 of 2.

This document is included by reference only. A copy can be found in folder 1.4.6 of the West Waterway Sediments Administrative Record (HIAO4).

SUB-HEAD: 1. 11. . . Vol. 1 - Supplemental Studies under 1998 AOC

1. 11. . . Vol. 1 - 1088104 DOC ID: 1088104
DATE: 5/1/1999 PAGES: 96
AUTHOR(S): ADDRESSEE(S):
EVS Environment Consultants Lockheed Martin Corp.

Port of Seattle

Todd Pacific Shipyards Corp.

DESCRIPTION: Review of Tissue Residue Effects Data for Tributyltin (TBT), Mercury (Hg), and Polychlorinated Biphenyls (PCBs).

This document is included by reference only. A copy can be found in folder 1.11.1 of the West Waterway Sediments Administrative Record (HIAO4).

1. 11. . . Vol. 1 - 1088107 DOC ID: 1088107
DATE: 5/1/1999 PAGES: 480
AUTHOR(S): ADDRESSEE(S):
EVS Environment Consultants Lockheed Martin Corp.

(HLES2) HARBOR ISLAND - LOCKHEED SHIPYARD EXPLANATION OF SIGNIFICANT DIFFERENCES AR #2 INDI

EVS Environment Consultants

Port of Seattle

Todd Pacific Shipyards Corp.

DESCRIPTION:

Waterway Sediment Operable Unit: Tributyltin (TBT) in Marine Sediments and the Bioaccumulation of TBT Combined Data Report.

This document is included by reference only. A copy can be found in folder 1.11.2 of the West Waterway Sediments Administrative Record (HIAO4).

1. 11. . . . Vol. 1 - 1088127 DOC ID: 1088127
DATE: 9/1/1999 PAGES: 198

AUTHOR(S):
Environmental Solutions Group

ADDRESSEE(S):
Lockheed Martin Corp.

Port of Seattle

Todd Pacific Shipyards Corp.

DESCRIPTION:

Assessing Human Health Risks from the Consumption of Seafood: Human Health Risk Assessment Report (Final).

This document is included by reference only. A copy can be found in folder 1.11.3 of the West Waterway Sediments Administrative Record (HIAO4).

SUB-HEAD: 1. 11. 1. . Vol. 1 - Comments

1. 11. 1. . . Vol. 1 - 1088125 DOC ID: 1088125
DATE: 9/1/1999 PAGES: 14

AUTHOR(S):
Environmental Solutions Group

ADDRESSEE(S):
Unknown

EPA

DESCRIPTION:

Technical Memorandum: Topics Related to the Tributyltin (TBT) Study at the Harbor Island Superfund Site, Waterway Sediment Operable Unit.

This document is included by reference only. A copy can be found in folder 1.11.2.1 of the West Waterway Sediments Administrative Record (HIAO4).

HEADING: 3. 0. . . ENFORCEMENT

SUB-HEAD: 3. 1. . . Vol. 1 - Administrative Order on Consent

3. 1. . . Vol. 1 -	DOC ID: 1128029
DATE: 7/11/1997	PAGES: 53
AUTHOR(S): Catherine Krueger/EPA	ADDRESSEE(S): Lockheed Martin Corp.

DESCRIPTION: Administrative Order on Consent for Remedial Design for the Lockheed Martin Portion, Shipyard Sediment Operable Unit.

This document is included by reference only. A copy can be found in folder 1.3 of the Lockheed Shipyard Explanation of Significant Differences AR (HLES2).

HEADING: 4. 0. . . RECORD OF DECISION

SUB-HEAD: 4. 1. . . Vol. 1 - State Concurrence Letter

4. 1. . . Vol. 1 - DOC ID: 1160354
DATE: 3/28/2003 PAGES: 2
AUTHOR(S): James J. Pendowski/Washington State Dept. of Ecology
ADDRESSEE(S): Michael F. Gearheard/EPA

DESCRIPTION: Concurrence letter for the Explanation of Significant Differences (ESD) to the Harbor Island Shipyard Sediment Operable Unit, Lockheed Shipyard Sediments.

SUB-HEAD: 4. 2. . . Vol. 1 - Record of Decision

4. 2. . . Vol. 1 - 1050713 DOC ID: 1050713
DATE: 11/27/1996 PAGES: 79
AUTHOR(S): Charles C. Clarke/EPA
ADDRESSEE(S): Unknown

DESCRIPTION: Record of Decision, Declaration, Decision Summary, and Responsive Summary for the Shipyard Sediment Operable Unit, Harbor Island.

This document is included by reference only. A copy can be found in folder 4.2 of the Shipyard Sediments Administrative Record (HIAO5).

SUB-HEAD: 4. 3. . . Vol. 1 - Explanation of Significant Differences (ESD)

4. 3. . . Vol. 1 - DOC ID: 1146499
DATE: 2/1/2002 PAGES: 78
AUTHOR(S): EPA
ADDRESSEE(S): Unknown

DESCRIPTION: Explanation of Significant Differences (ESD), Lockheed Shipyard Sediment Operable Unit, Harbor Island Superfund Site.

This document is included by reference only. A copy can be found in folder 1.5 of the Lockheed Shipyard Explanation of Significant Differences AR (HLES2).

4. 3. . . Vol. 1 - DOC ID: 1160355
DATE: 3/31/2003 PAGES: 10
AUTHOR(S): Michael F. Gearheard/EPA
ADDRESSEE(S): Unknown

DESCRIPTION: Explanation of Significant Differences (ESD) to the Harbor Island Shipyard Sediment Operable Unit, Lockheed Shipyard Sediments, Selected Remedial Action.

HEADING: 5. 0. . . REMEDIAL DESIGN

SUB-HEAD: 5. 1. . . Vol. 1 - Correspondence

5. 1. . . Vol. 1 - 1110536 DOC ID: 1110536
DATE: 3/2/2000 PAGES: 3
AUTHOR(S): Piper Peterson Lee/EPA
ADDRESSEE(S): Carol A. Yuge/Lockheed Martin Corp.

DESCRIPTION: Letter indicating EPA has determined that no further revisions to the 1/15/00 Basis of Design Report are necessary and listing issues that should be addressed in a technical memorandum.

This document is included by reference only. A copy can be found in folder 1.1 of the Lockheed Shipyard Explanation of Significant Differences AR (HLESD).

SUB-HEAD: 5. 5. . . Vol. 1 - Sampling and Analysis Plan

5. 5. . . Vol. 1 - 1123574 DOC ID: 1123574
DATE: 4/14/2000 PAGES: 19
AUTHOR(S): Hart Crowser and Associates, Inc.
ADDRESSEE(S): Lockheed Martin Corp.

DESCRIPTION: Technical Memorandum, Basis of Design report for Lockheed Shipyard No. 1 Operable Unit.

This document is included by reference only. A copy can be found in folder 1.2 of the Lockheed Shipyard Explanation of Significant Differences AR (HLESD).

SUB-HEAD: 5. 6. . . Vol. 1 - Design Reports

5. 6. . . Vol. 1 - 1082808 DOC ID: 1082808
DATE: 2/19/1999 PAGES: 243
AUTHOR(S): Hart Crowser and Associates, Inc.
ADDRESSEE(S): Lockheed Martin Corp.

DESCRIPTION: Final Remedial Investigation Data Report - Lockheed Shipyard No. 1 Sediment Operable Unit: Volume I (Includes 4/2/99 EPA approval letter, comments on the Final Remedial Design Investigation Report for Lockheed Shipyard No. 1 Sediment Op Unit, and Lockheed Martin's response to EPA Comments on the Final Remedial Design Investigation Report).

This document is included by reference only. A copy can be found in folder 1.2 of the Lockheed Shipyard Explanation of Significant Differences AR (HLESD).

5. 6. . . Vol. 1 - 1089230 DOC ID: 1089230
DATE: 1/1/2000 PAGES: 427
AUTHOR(S): Hart Crowser and Associates, Inc.
ADDRESSEE(S): Lockheed Martin Corp.

DESCRIPTION:

Final Basis of Design Report, Lockheed Shipyard No. 1 Sediment Operable Unit.

This report was finalized in a letter sent March 2, 2000 (Doc 1110536).

This document is included by reference only. A copy can be found in folder 1.2 of the Lockheed Shipyard Explanation of Significant Differences AR (HLESD).

5. 6. . . . Vol. 1 - DOC ID: 1160002
DATE: 6/21/2002 PAGES: 324

AUTHOR(S):
Hart Crowser, Inc.

ADDRESSEE(S):
Lockheed Martin Corp.

DESCRIPTION:

Interim Remedial Design Submittal, Lockheed Shipyard No. 1 Sediment Operable Unit.

5. 6. . . . Vol. 1 - DOC ID: 1151975
DATE: 11/6/2002 PAGES: 7

AUTHOR(S):
John Herzog/Hart Crowser, Inc.

ADDRESSEE(S):
Gene S. Matsushita/Lockheed Martin Corp.

Joe Morrice/Hart Crowser, Inc.

DESCRIPTION:

Memorandum: Additional Sediment Cap Attenuation Modeling, Lockheed Shipyard Sediment Operable Unit.

5. 6. . . . Vol. 1 - DOC ID: 1160032
DATE: 3/10/2003 PAGES: 24

AUTHOR(S):
EPA

ADDRESSEE(S):
Unknown

DESCRIPTION:

Selection of Confirmational Chemical Criteria for use at the Harbor Island Superfund Site Shipyards Operable Unit (screening level tables and surface sediment maps attached).

This document is included by reference only. A copy can be found in folder 5.6 of the Todd Shipyard Under Pier Remedy ESD (HUPAR)

SUB-HEAD: 5. 6. 1. . Vol. 1 - Comments and Responses

5. 6. 1. . . Vol. 1 - DOC ID: 1151630
DATE: 9/6/2002 PAGES: 46

AUTHOR(S):
Lynda E. Priddy/EPA

ADDRESSEE(S):
Gene S. Matsushita/Lockheed Martin Corp.

DESCRIPTION:

Letter transmitting comments on the Interim Remedial Design Analysis report dated 6/21/01.

5. 6. 1. . . Vol. 1 - DOC ID: 1151631
DATE: 12/11/2002 PAGES: 3

AUTHOR(S):
Lynda E. Priddy/EPA

ADDRESSEE(S):
Gene S. Matsushita/Lockheed Martin Corp.

DESCRIPTION:

Letter transmitting comments on the Technical Memorandum - Additional Sediment Cap Attenuation Modeling, dated 11/6/02.

5. 6. 1. . Vol. 1 -

DOC ID: 1160362

DATE: 3/31/2003

PAGES: 4

AUTHOR(S):

EPA

ADDRESSEE(S):

Hart Crowser, Inc.

DESCRIPTION:

Review of Hart Crowser Letter dated 3/11/03 regarding the Response to Comments on Cap Attenuation Modeling Technical Memorandum, Lockheed Shipyard Sediment Operable Unit.