**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION 10**
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OFFICE OF
ENVIRONMENTAL CLEANUP

December 13, 2010

**MEMORANDUM**

SUBJECT: Request to Prepare a Draft Engineering Evaluation/Cost Analysis for the LST-1166, Columbia County, Oregon

FROM: Richard Franklin, On-Scene Coordinator
Emergency Response Unit

THRU: Chris D. Field, Manager
Emergency Management Program

TO: Daniel D. Opalski, Director
Office of Environmental Cleanup

## I. PURPOSE

The purpose of this Approval Memorandum is to request and document approval to prepare a draft Engineering Evaluation/Cost Analysis (EE/CA) for a non-time critical removal action proposed by the U.S. Coast Guard (USCG) for the ex-USS Washtenaw County LST-1166 (LST-1166), an abandoned former Navy vessel located in Columbia County, Oregon.

The USCG requested the U.S. Environmental Protection Agency (EPA) prepare a draft EE/CA because of EPA's expertise and experience with the EE/CA development process. The USCG is the lead agency for the LST-1166 because it is located within the coastal zone. The USCG will fund EPA's activities through a Pollution Removal Funding Authorization (PRFA).

This action meets the criteria for initiating a removal action under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR §300.415 (b)(2)(i), and (b)(2)(ii).

## II. BACKGROUND

The CERCLIS ID No. is ORN001002909. The EPA Site ID No. is 10JR.

### A. Location

The LST-1166 is an abandoned, former U.S. Navy (USN) vessel illegally moored along the bank of the Columbia River across from Lord Island at River Mile 63. It is located

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approximately 4.5 miles west/northwest of Rainier, Columbia County, Oregon, and is also 1.5 miles downstream and south of Longview, Washington (Lat. 46˚ 07´ 18˝ N, Long 123˚ 00´ 51˝ W, see Attachment 1).

The Columbia River supports a wide array of fish and wildlife and sensitive environments. The river has been designated as critical habitat for the two species of federal-listed threatened salmon and is a migratory pathway critical for the maintenance of Steelhead trout. Additionally, the adjacent Lord Island is designated a "waterfowl concentration" area by the Region 10 Geographic Response Plan. LST-1166 is located in a semi-remote part of the river; however this area of the Columbia River is extensively used for fishing by the public and is downstream from a public access beach. The immediate area around the LST-1166 is both recreational and industrial.

### B. Site Description

The LST-1166 was built in 1953 as a tank landing ship for the USN, but was converted into a minesweeper in 1973 for service in Vietnam. It was decommissioned later that year. The vessel measures 373.9 feet long at the waterline, is 55 feet in breadth, and weighs 2418 gross tons. After being decommissioned, LST-1166 was transferred to the U.S. Maritime Administration (MARAD) for disposal as scrap. MARAD sold the vessel to a foreign flag. The vessel has been used commercially by at least two foreign-flag owners. In 1980 it was towed to Astoria, Oregon because of mechanical troubles. Since that time it has been inactive and changed ownership several times. It has also been moored in several locations along the Columbia and Willamette rivers. The current owner, Washtenaw County LST-1166, LLC, is a defunct non-profit organization which bought the ship with the intent of developing it into a maritime museum. In 2002, the ship was relocated to its current location and some efforts were made to refurbish the vessel. However, conversion to a maritime museum was not successful.

In 2004 trespassing aboard the vessel began. The ship has since been subject to profound vandalism, illegal stripping of metal, wiring, piping, hatches and valves, and has been used for illegal methamphetamine activity and waste oil dumping. The vessel's hull is in a deteriorating condition and is compromised and has taked on water from an apparent leak in its hull. The bottom two decks and engine room of LST-1166 are currently flooded.

The LST-1166 is bordered on the south by forested river bank, wetlands, and open farmland. Several farms are located within one mile; the closest lies within ¼-mile. Lord Island, an uninhabited island of forest and wetlands is located to the north directly across the river channel from the vessel.

The following threatened or endangered species are present in the vicinity of LST-1166: Chinook salmon (*Oncorhynchus tshawytscha)*, Coho salmon (*Oncorhynchus kisutch)*, Chum Salmon (*Oncorhynchus keta*), and Steelhead Trout (*Oncorhynchus mykiss)*.

## C. Vessel Ownership

After decommissioning by the USN, LST-1166 was struck from the Naval Register and transferred to MARAD on July 1, 1973. It was subsequently bought by foreign interests and registered as AL MANHAL I from 1973 to 1980, and as EL CENTROAMERICANO from 1980 to 1984. Attempts to restore the vessel began in 1983 when the vessel was purchased from a Portland tug company by Mr. Arthur Raz. Mr. Raz passed away in 1993 and the vessel sat idle for several years. In 2001, Mr. Bill Brown attempted to purchase the ship and began to refurbish it, but Mr. Brown could not meet the financial obligations of the vessel and the deal fell through. The vessel was towed from Gunderson, Oregon to the Port of St. Helens on March 29, 2002. Several efforts were made by the Port of St. Helens to remove LST-1166 due to improper mooring and a potential threat of damaging surrounding vessels. In October 2002 a notice of eviction was issued by the Port of St. Helens. Also in 2002, an Oregon non-profit organization headed by Mr. Walt James, otherwise known as Amphibious Forces Memorial Museum, LLC (AFMM), began efforts to purchase the vessel. AFMM then relocated it to its current location.

On May 29, 2003, AFMM was successful in purchasing the vessel. In December 2003, AFMM changed its name to Washtenaw County - LST1166, LLC. The company was administratively dissolved August 4, 2006, but was reinstated September 24, 2007. USCG Sector Portland has issued three Administrative Orders and a Captain of The Port (COTP) order to the vessel owners for environmental cleanup and mitigation of potential threats from the vessel, but the owner has not complied. Furthermore, the Certificate of Financial Responsibility (COFR) Guarantor for the vessel, Lloyds of London, ultimately cancelled the COFR as of February 7, 2008 and refused to conduct a clean up of the vessel. Washtenaw County LST-1166, LLC is for all intents and purposes financially defunct.

## D. USCG and EPA

The LST-1166 is clearly within the USCG's Area of Responsibility (AOR) for which it is the lead agency for response incidents under the NCP and the Area Contingency Plan (ACP). This includes spill responses and removal actions conducted pursuant to the federal Clean Water Act (CWA) as amended by the Oil Pollution Act of 1990 (OPA), and the Comprehensive Environmental Response and Compensation and Liability Act (CERCLA).

As lead agency, the USCG previously ordered the owner of the vessel to remove contaminants from the vessel (see discussion below) and submit a comprehensive plan which could possibly conclude with vessel disposal at sea. Such disposal would have required obtaining EPA's approval and use of EPA's Ocean Dumping General Permit (GP) (40 CFR Part 229.3) for the transportation and disposal of vessels in ocean waters pursuant to the Marine Protection, Research and Sanctuaries Act (MPRSA). Lloyds of London's contractor did seek authorization to use the Ocean Dumping GP to dispose of the LST-1166 at sea, but this was denied by EPA because the contaminants had not

been removed and the terms of the GP had not been met. It has since been determined that, due to the presence and levels of PCBs onboard, disposal of PCBs on the LST-1166 in the ocean is also covered by the Toxic Substances Control Act (TSCA).

The USCG has also expressed interest in disposal of the vessel in the ocean, but has explored other options such as cleaning and recycling. Because of the complexity of potential removal options, including disposal at sea, EPA has offered assistance to the USCG for the limited purpose of preparing a draft EE/CA to assess a limited number of removal action alternatives appropriate for the vessel.

## III. NATURE AND EXTENT OF CONTAMINATION

On September 7, 2007, the USCG was notified by local law enforcement authorities that a sheen of oil was discharging from the vessel onto the Columbia River. The USCG visited the vessel immediately and determined that LST-1166 was posing a substantial threat of discharge of oil and release of hazardous substances into the Columbia River and the surrounding environment due to the deteriorating condition of the vessel and the large amount of oil and hazardous substances on board. Further investigation revealed that the cause of the sheen was stripping of piping, valves, wire, and hydraulic lines from the vessel by thieves. The thieves had also ripped open asbestos insulation in order to recover copper wiring.

Due to an inadequate response by the Responsible Party, the USCG conducted interim removal activities from July 2008 to January 2009. The USCG removed and disposed all petroleum products, as well as many hazardous materials, including: 3,975 gallons (gals) of fuel and oil, 26,342 gals of oily water, 8,100 pounds (lbs) of oily debris, 465,800 gals of water needing treatment, 5,125 gals of polychlorinated biphenyls (PCB) oil from forward hydraulics and piping, 349,442 lbs of PCB-contaminated solids, 120 cubic yards friable asbestos, 5 lbs of mercury, and 4 lbs of hypodermic needles. Remaining asbestos insulation on walls, surfaces and piping was encapsulated with a polymer.

Hazardous substances remaining after the interim removal activities include flaking lead-based paint on the exterior of the vessel, flaking PCB and lead-based paints on the interior of the vessel, asbestos wiring insulation containing PCBs, and encapsulated asbestos. Swipe and paint flake samples taken by the USCG has shown levels of PCBs in interior paint to range from <0.5 ppm to 72.6 ppm. PCB levels in asbestos wiring insulation range from <0.5 ppm to 2160 ppm. Lead levels in paint range from 3.42 ppm to 8,200 ppm.

During a recent inspection by EPA, painted surfaces throughout the interior and exterior of the vessel were found to be corroding and flaking, and with paint chips littering most horizontal surfaces and deck floors. Furthermore, paint was observed to be flaking off external surfaces and the hull and falling into the Columbia River. Also during the inspection, an unknown type of oil was observed floating on top of waters which had

flooded the lower decks. Finally, several rooms and interior spaces remain filled completely with foam from earlier refitting of the vessel as a mine sweeper.

## IV. THREAT TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT

Substances found on the LST-1166, including the substances discussed above in the preceding section, constitute hazardous substances as defined by Section 101(14) of CERCLA, 42 U.S.C. §9601(14). Oils found and discharged from LST-1166, also discussed above in the preceding section, meet the definitions of "oil" and "discharge" as defined in Sections 311(a)(1) and (2) of the CWA, 33 U.S.C. §1321(a)(1) and (2) and Sections 1001(23) and (7) of OPA, 33 U.S.C. §2701(23) and (7).

### A. Human Health and the Environment

Threats from exposure to contaminants onboard the vessel are both human and ecological. The elevated concentration of hazardous substances and exposure of contaminated surfaces to the environment indicates that inhalation (air) and direct contact (dermal) human exposure pathways exist. Nearby water recreationists and trespassers could be exposed to the contaminants. Furthermore, the potential for exposure is elevated because the contact of the exterior of LST-1166 is unrestricted to weather and the environment. Open contact with the Columbia River could result in redistribution of contaminants through the water column and/or sediments.

Ecological receptors, including avian, mammalian, fish, and marine plant receptors could become exposed to elevated levels of contaminants found either on the vessel, or in the Columbia River water or sediments contaminated by these materials. Similarly, ecological receptors could become exposed through ingestion of paint flakes, water and sediments contaminated by these materials.

### B. Expected Change if No Action is Taken

If no action is taken, or if action is further delayed:

- hazardous substances will remain as potential human health and environmental threats based on inhalation, direct contact, and ingestion pathways;
- hazardous substances will remain a potential continuing source of solid phase contaminants; and
- petroleum product will likely continue to discharge into the Columbia River.

## V. ENDANGERMENT DETERMINATION

The actual or threatened release of hazardous substances within and from LST-1166 may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of Section 104(a) of CERCLA, 42 U.S.C. §9604(a). The actual or substantial threat of a discharge of oil from LST-1166 in contravention of Section 311(b) of the CWA, 33 U.S.C. §1321(b) may be harmful to the public health,

welfare, or the environment of the United States, including but not limited to fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

## VI. ENFORCEMENT ACTIONS

This section does not apply because the USCG is the lead agency for the removal action, and the USCG is funding EPA's limited involvement with the EE/CA development process.

## VII. PROPOSED PROJECT/OVERSIGHT AND COSTS

EPA will prepare only a draft EE/CA. All other EE/CA process requirements such as the administrative record, community relations, and selection of the final alternative in an Action Memorandum will be addressed by the USCG, with assistance from EPA. Based on the analysis of the nature and extent of contamination, and the clean up objectives developed as part of the draft EE/CA, a limited number of removal action alternatives will be identified and evaluated against the scope of the removal action and against each specific objective. The alternatives for the vessel that will be subject to individual and comparative analysis will likely include (1) contaminant and oil removal and ocean disposal, (2) a combination of contaminant encapsulation and oil removal along with ocean disposal, and (3) contaminant and oil removal and scrapping/recycling at a ship-breaking facility. The USCG, with EPA's assistance, is expected to select a final removal action alternative following public review and comment. EPA's estimated costs for conducting the draft EE/CA are approximately $98,000, and these costs will be reimbursed by the USCG pursuant to the PRFA dated September 2, 2010.

## VIII. RECOMMENDATION

Conditions at the LST-1166 Site meet the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300.415(b) for removal action, and I recommend your approval to prepare a draft EE/CA on behalf of the USCG.

Approval: _____ Disapproval: _____

Signature: _____

Date: _____

Attachments: 1) Site Location Map