



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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In Reply Refer To:
FWS/R1/ABA-
EN

JUN - 3 2010

Memorandum

To: Regional Director, Region 1
Portland, Oregon

From: Assistant Regional Director, Budget and Administration, Region 1
Portland, Oregon

Subject: Approval Memorandum for Expanding an Engineering Evaluation/Cost Analysis to Develop Proposed Non-Time-Critical Removal Action Alternatives

The Fish and Wildlife Service (FWS) initiated the preparation of an Engineering Evaluation/Cost Analysis (EE/CA) to remediate lead paint at Midway Atoll National Wildlife Refuge on February 9, 2010. The purpose of this Approval Memorandum is to request your authorization to initiate a substantially expanded EE/CA that evaluates alternatives and provides a basis for selecting a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) non-time critical removal action addressing the release and substantial threat of release of lead contamination at the Midway Atoll National Wildlife Refuge ("Midway Atoll" or "the Refuge").

I. Site Background

Midway Atoll, located at the northwest end of the Hawaiian Islands archipelago comprises two main islands, Sand and Eastern, and one smaller islet, enclosed within a reef approximately 8 km (5 miles) in circumference, averaging 3 meters (10 feet) above average ocean levels. Sand Island, the focus of this project, is about 3 km (1.8 miles) by 2 km (1.2 miles) across with a total land area of about 4.45 square kilometers (1,100 acres).

On May 5, 2010, the Department of the Interior's Central Hazardous Materials Fund (CHF) Technical Review Committee recommended \$1.4 million that may be used to fund the expanded EE/CA recommended by this Approval Memorandum.

II. Threat to Public Health, Welfare, or the Environment

FWS conducted an ecological risk assessment (ERA) in 2009 to evaluate lead in soil and the affects of lead on Laysan albatross chicks (FWS, 2009). The primary source of lead in soil is the LBP on the structures on Sand Island. Paint chips from those structures have high levels of lead and are present in the soil where the Laysan albatross nests are located. The objectives of the

FWS ERA were to characterize lead concentrations in soil around selected structures and lead concentrations in reference (background) areas and compare lead levels in soil to blood-lead levels in co-located Laysan albatross chicks.

FWS concluded:

- 67 Milligrams per kilogram (mg/kg) is representative of upper-end background lead concentrations.
- Lead concentrations decrease with depth and distance from structures.
- Approximately 33 percent of the birds evaluated had blood-lead concentrations greater than the threshold for sensitive clinical effects (10 micrograms per deciliter {ug/dL}).
- Soil lead concentrations less than 100 mg/kg will be protective of Laysan albatross chicks (that is, those soil concentrations will not likely result in blood-lead levels that exceed 10 ug/dL). The protectiveness of this clean-up level will be further evaluated and confirmed in the EE/CA.

In summary, studies conducted by FWS and others at Sand Island between the late 1980s and 2009, have shown that Laysan albatross nestlings (chicks) exhibited symptoms of lead toxicity and that their exposure is likely related to ingestion of LBP chips and soil contaminated with LBP chips, which the birds often pick up and place into their nests (FWS, 2009). Based on these reports, existing information concerning the release or threatened release of hazardous substances, pollutants, or contaminants at Midway Atoll was compiled in a Preliminary Assessment/Site Inspection (PA/SI) report.

III. Imminent and Substantial Endangerment

As documented in Section II above and by the PA/SI report, hazardous substances have been released, as defined in Section 101 (22) of CERCLA, and there is a substantial threat of ongoing and future releases into the environment at Midway Atoll that pose an imminent and substantial threat to the public health or welfare or the environment.

IV. Enforcement Actions

The Service has not identified potentially responsible parties against whom enforcement action could be taken to compel performance of necessary response action or to recover response costs incurred by the Service.

V. Proposed Actions

Pursuant to CERCLA 104(a), whenever a hazardous substance is released, or there is a substantial threat of such release into the environment, a removal action consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300 ("NCP") may be undertaken, if, in the discretion of the lead agency, such action is necessary to protect public health or welfare or the environment. Pursuant to Executive order 12580, as amended, the Department of the Interior is the "lead agency," as that term is defined by the NCP, with respect to releases of hazardous substance on or solely from land under the jurisdiction, custody, or control of the Department. This authority has been delegated by the Secretary of Interior to FWS

with respect to land under the jurisdiction, custody, or control of FWS. The PA/SI for Midway Atoll documents the release and substantial threat of release of hazardous substances that present unacceptable risks to public health, welfare, and the environment, and concludes that a removal action is appropriate to address the lead contamination. The actions conducted from 2003 to 2006 were temporary attempts to prevent an exposure to ecological receptors from contaminated soil, but were not intended to provide a permanent response to the release and threatened release. The removal of lead paint from 24 buildings by the on island contractor does provide a permanent response to the release and threatened release of hazardous substances from the buildings.

The proposed action is to conduct an EE/CA to further delineate the nature and extent of the release or threatened release of lead contamination at Midway Atoll and develop and evaluate removal action alternatives. Under Section 300.415(b)(4) of the NCP, an EE/CA may be conducted to analyze permanent removal alternatives for the site whenever a planning period of six months or more exists before on-site activities must be initiated. This Approval Memorandum was prepared seeking authorization to expand an existing scope of work with GeoEngineers to comprehensively examine the extent of contamination and evaluate removal alternatives. A statement of work (SOW) revising the initial SOW is attached and requires the development of removal alternatives for your consideration.

VI. Approval

The conditions at Midway Atoll meet the NCP criteria for a removal action, but the remote nature and wildlife needs at Midway make a time-critical response infeasible. I am therefore, requesting approval to proceed with an EE/CA at Midway Atoll, from which non-time critical removal action alternatives will be evaluated and a preferred alternative identified in time to make a decision and proceed with implementation of the selected alternative by July 2011. Please indicate your approval or disapproval below.

Approve: Rayna Thurson
Regional Director, Region 1

Date: June 3, 2010

Disapprove: _____

Date: _____