



United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
333 Bush Street, Suite 500
San Francisco, California 94104-2828



F34(PWR-FM)

Memorandum

To: Christine Lehnertz, Regional Director, National Park Service,
Pacific West Region

Through: Patty Neubacher, Administration and Facilities Management *[Signature]*

Through: David Kruse, Chief of Facility Management

From: Stephen Mitchell, PE, Operations/Environmental Program Lead

Subject: Engineering Evaluation & Cost Analysis Approval Memorandum Lead
Impacted Soil near Potable Water Tank at Devils Postpile National Monument

Request you sign the attached Engineering Evaluation & Cost Analysis Approval Memorandum, Lead Impacted Soil near Potable Water Tank at Devils Postpile National Monument. The Action Memorandum was prepared according to the guidelines proposed in *Superfund Removal Guidance for Preparing Action Memoranda* (U.S. Environmental Protection Agency, E.S. EPA 2009).

The Non-Time-Critical Removal Action is being performed pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP). Under the CERCLA, the United States Department of Interior (DOI) National Park Service (NPS) has lead agency responsibility (Title 40 Code of Federal Regulations (CFR) 300.5) for implementing appropriate investigations and removal actions where environmental impacts have or may have occurred from historical activities and where such releases may constitute a residual threat to human health or the environment.

[Signature]

Steve J. Mitchell

Attachment:



October 11, 2012

To: Regional Director, Pacific West Region

From: Superintendent, Devils Postpile National Monument

Through: Steve J. Mitchell, PE, NPS/PWR/FM, Operations/Environmental Program Lead *sm*

Subject: Engineering Evaluation & Cost Analysis Approval Memorandum
Lead Impacted Soil near Potable Water Tank at Devils Postpile National Monument

PURPOSE

This memorandum recommends and documents the decision of the National Park Service (NPS) to conduct an Engineering Evaluation/Cost Analysis (EE/CA) pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, for lead impacted soils near the potable water tank at Devils Postpile National Monument (DEPO), California. NPS is the CERCLA lead agency with authority to respond to the release or threatened release of hazardous substances at or from the Site. This Memorandum was prepared in accordance with CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300, and the U.S. Environmental Protection Agency's (EPA) *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, OSWER Publication 9360.0-32 (August 1993).

BACKGROUND

Located on the western slope of the Sierra Nevada range between 7,200 and 8,200 feet, DEPO contains an interesting assemblage of flora, fauna and geology, for which the monument was set aside. DEPO is located along the Middle Fork of the San Joaquin River Valley in the south eastern Sierra Nevada, approximately 2 miles southwest of Mammoth Mountain ski resort in Madera County, California at 37.629 N Longitude and 119.0847 W Latitude.

DEPO's landscape is a result of eruptions and uniform cooling of basalt lava that created an impressive wall of columns. Later, a glacial event exposed the columns and polished smooth the top of this formation, enhancing the pattern of hexagons that resulted from the mineral composition of the lava.

In 2008, at the request of the NPS, Provost and Pritchard Consulting Group¹ (P&P) conducted a Preliminary Assessment (PA) in general accordance with the CERCLA guidance manual for the 2005 release of lead based paint chips and sand blasting debris, at the 100,000 gallon above-ground potable water tank at DEPO. The objective of the PA was to identify past and present

practices related to the historic release and evaluate the site's Hazard Ranking System score (HRS).

The scope of the investigation included review of available records, a site reconnaissance and interviews with DEPO personnel. The investigation focused on the 2005 water tank sandblasting operations activities intended to remove the lead-based paint from the exterior of the tank. The tank was reportedly installed prior to 1940 and had not been repainted since its installation.

In November of 2005, following sandblasting and painting operations, Mr. John Fernandes¹, DEPO Maintenance Supervisor, collected ten soil samples within the sandblasting containment area to verify the painting contractor's cleanup. The painting contractor violated the contract by sampling without NPS technical representatives present. The exact sampling locations are not known. The analytical results for samples collected by Mr. Fernandes indicated a maximum lead concentration of 2,100 milligrams per kilogram (mg/kg) and a minimum concentration of 20 mg/kg.

On the basis of their historical data review, site visit, and interviews, P&P's calculated an HRS score of 9.14 using the EPA's QuickScore. Generally, sites scoring less than 28.50 receive a no further remedial action planned (NFRAP) recommendation. Concentrations of lead in site soils are below the California Human Health Screening Levels (CCHLS) of 3,500 mg/kg for commercial/industrial use. However, the average lead concentrations slightly exceed the Total Threshold Limit Concentration (TTL) of 1,000 mg/kg, as defined in Title 22, California Code of Regulations.

Exceedances of TTL's for lead indicate that additional information is necessary to determine background concentrations and, if appropriate, to develop proposed action levels (PALs) for the Site.

NPS has reviewed all available Site information and concluded that the PA did not completely characterize the nature and extent of contamination for purposes of conducting a Non-Time-Critical Removal Action (NTCRA). Further, NPS has determined that an NTCRA should be undertaken to address the Site's known and potential threats to public health, welfare, and the environment. To address gaps in the characterization of contamination and to develop and to evaluate removal action alternatives in accordance with CERCLA and the NCP, this Memorandum recommends that NPS conduct an EE/CA for the lead-impacted soil near the potable water tank at DEPO.

USE OF REMOVAL ACTION AUTHORITY

Pursuant to Sections 104(a)(1) and (b)(1) of CERCLA, 42 U.S.C. §§ 9604(a)(1) and (b)(1), whenever there is a release or substantial threat of a release of a hazardous substance into the environment, the President is authorized to act, consistent with the NCP, to remove or arrange for the removal of such hazardous substance or take any other response action, including appropriate investigations, deemed necessary to protect public health or welfare or the environment. Section 104(a) and (b) response authority (including the authority to perform an NTCRA, including the EE/CA that is the subject of this Memorandum) has been delegated to the Secretary of the Department of the Interior (DOI) pursuant to Executive Order 12580, 52 Fed. Reg. 2923 (1987), and further delegated to NPS by DOI Departmental Manual Part 207, Chapter 7, with respect to property under the jurisdiction, custody, or control of NPS.

Section 300.415(b)(2) of the NCP establishes the criteria for determining the appropriateness of a removal action. The following are applicable criteria that support the determination to consider a removal action at the Site:

- i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- ii. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- iii. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate; and
- iv. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

As summarized above, the 2008 assessment indicated lead, a CERCLA hazardous substance, was present at elevated concentrations in the surface soils around the potable water tank. Because the locations of the samples collected are unknown, the extent of contamination is unknown, which represents a gap in the characterization.

Units of the National Park System are considered sensitive ecosystems. See, e.g., National Park Service Organic Act, 16 U.S.C. § 1 (National Park System units shall be managed "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.").

Based on the PA, groundwater and surface water targets are not within sufficient distance of the tank site for there to be a migratory pathway to these resources. Restrictive air flow due to the hilly forested terrain between the source and potential targets make it unlikely that an airborne pathway exists. However, if soils were to be excavated in the future, the quantity of hazardous substances should be identified.

Based upon these considerations, NPS has determined that the use of removal action authority at DEPO to investigate, abate, prevent, minimize, stabilize, mitigate, and/or eliminate the release or threat of release of hazardous substances at or from the Site is appropriate. Additionally, NPS has determined that a planning period of at least six months exists before on-Site activities must be initiated. Therefore, NPS is authorized to conduct an EE/CA (or its equivalent) pursuant to and in accordance with Section 300.415(b)(4) of the NCP. An EE/CA is performed to determine the nature and extent of contamination, assess potential risks posed to human and ecological receptors from exposure to such contamination identify and evaluate removal action alternatives to address unacceptable risk, and identify a recommended removal action alternative that best meets the evaluation criteria.

EE/CA IMPLEMENTATION AND FUNDING

NPS has received funding from the DOI Central Hazardous Materials Fund (CHF) to implement the Site EE/CA. Upon approval of the recommendation, the Site EE/CA will be implemented.

APPROVAL

Based upon the information and analysis presented in this memorandum, please indicate your concurrence or non-concurrence with the recommendation to perform an EE/CA as part of a NTCRA at the lead contaminated site identified herein and located within DEPO. If you have any questions, please contact Steve Mitchell at (415) 623-2286.

I Concur

Patricia Kneubacher

Date:

10/11/12

I Do Not Concur

Date:
