TA-48

ENVIRONMENTAL RESTORATION PROJECT

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Date: October 4, 2002
Refer to: ER2002-0716

Mr. John Young, Corrective Action Project Leader
Permits Management Program
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505-6303

SUBJECT: RELEASE/DISCHARGE NOTIFICATION AND NOTIFICATION OF NEW AREA OF CONCERN (AOC) AT TECHNICAL AREA (TA)–48

Dear Mr. Young:

On Aug. 8, 2002, pursuant to New Mexico Water Quality Control Commission (NMWQCC) regulations (20 NMAC 6.2), the Department of Energy (DOE) and Los Alamos National Laboratory (LANL) notified your office of the discovery of a small amount of soil contaminated with organic chemicals. The soil was unearthed during trenching operations east of building 48-1 near a shed (structure number TA-48 RC-89) at TA-48. Since the initial discovery, LANL, DOE and subcontractors have been working to eliminate any potential hazards associated with relatively high concentrations of chemicals in the soils. Our priority goals include: protection of human health, source identification, site characterization and cleanup. All necessary remediation has been completed and potential health threats eliminated. The purposes of this letter are to respond to the New Mexico Environment Department's (NMED's) September 3, 2002 letter to John Browne and Everett Trollinger (ref: HWB-LANL-01-099); provide an account of the cleanup activities; and inform you of a new AOC at TA-48.

In NMED's letter dated September 3, 2002 (ref: HWB-LANL-01-099) NMED suggested that the release appeared to be from one of the two known nearby AOCs, referred to as Solid Waste Management Units (SWMUs) in the referenced letter. A description of these two AOCs, 48-002(e) and 48-002(c), follows:

- AOC 48-002(e) was a satellite accumulation area formerly located atop the asphalt that was in use from 1988 to approximately 1990. There is no documentation or evidence of releases or spills, and the only reported staining on the asphalt was rust stains from drums. This AOC was located approximately 120 ft west from the area of contamination. Two trenches were excavated in the

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area of the former AOC as part of the current investigation, and no Volatile Organic Compounds (VOCs) were detected. In addition, the Resource Conservation and Recovery Act (RCRA) Facility Investigation Report (RFI), conducted in 1994 (LANL 1995, ER ID 50295), found no evidence of VOCs, and detected Semivolatile Organic Compounds (VOCs) were associated with the asphalt at the site or found at very low concentrations. This evidence leads us to believe that this AOC is not the source for the contamination discovered near the shed TA-48 RC-89.

- AOC 48-002(c) was a container storage area formerly located atop the asphalt, and was in operation for only one year. There is no documentation or evidence of leaks or spills from this area. The former storage area is in the vicinity of the contaminated area; however, there was no evidence that spills on the asphalt surface were the cause of the contamination. Near-surface contamination was not found during the recent excavation activities: in fact, all contamination was found at depths below 3 ft. This evidence leads us to believe that this AOC, likewise, was not the source of the present contamination. In addition, samples collected down gradient of this former storage area (where contaminants would have migrated if there had been surface releases) contained no detected VOCs, and the detected SVOCs were at very low concentrations (Fresquez 1991, ER ID 0000819). This AOC was proposed for No Further Action (NFA) in 1997 (LANL 1997, ER ID 56752) and approved by DOE.

AOC 48-002(e) was discounted as a potential source because of its distance from the area of contamination. AOC 48-002(c) is located near the area of contamination, however soils testing and site characterization done in conjunction with removal of contaminated soils showed no residual contamination in the near surface soil/fill that separates this AOC from the area where soil contamination was discovered.

In the initial notification to NMED, LANL reported that this soil's contamination was the result of an operational spill, and as such is subject to the NMWQCC regulations. Lack of residual contamination in the upper 3 ft of fill indicates that the contamination had not been released from a surface source such as the two AOCs described above. To confirm that the source of this contamination was the result of an operational release, design drawings for the facility were reviewed and a GPR survey was conducted to identify potential sources. Results of these efforts did not lead to a decisive conclusion that this contamination stemmed from an operational release.

A preliminary risk evaluation and preliminary remediation goals (PRGs) based on the available data were submitted to NMED via facsimile on September 11, 2002.

Excavation of contaminated soil began on Thursday, September 12, 2002 and concluded on Monday, September 23. Confirmatory samples were collected on September 23, 2002 after approximately 150 yd^3 of contaminated soil were excavated from the site. The area of excavation is approximately 30 ft by 37 ft and is 6 ft deep in the center of the excavation. Results showed that the contamination was found only in a layer of fill below approximately 3 ft and above bedrock (tuff). No contamination was

found below depths of 6.5 ft bgs. Photo Ionization Detector (PID) readings and head space samples were used to guide the excavation in the field. We were able to use the PID with a combination of direct readings and head space samples to very conservatively remove contaminated material from the site (i.e., to levels that will be well below the proposed PRGs in the September 11 facsimile). All soils showing more than 10-ppm PID units have been excavated. An additional 3 ft of soils and fill were removed from sidewalls and from the bottom of the excavation to ensure an adequate buffer beyond the zone of known contamination was removed.

Although DOE and LANL were unable to find conclusive evidence to explain the origin or cause of the contamination, because a source indicating routine and systematic releases was not found, and because this contamination is not related to an area in which wastes were managed, DOE and LANL are proposing this site is an AOC. LANL will follow the process for including this site in DOE's AOC inventory. DOE will forward to NMED a copy of the closure report for this AOC following DOE's review and approval.

LANL will request that the NMED-SWQB close-out its file for this site under the NMWQCC regulations, because the source is no longer believed to be a current operational spill. DOE and LANL believe that the remedy measures have been completed at this site and that further remedial actions are not warranted. The close-out request will be submitted under separate cover.

Please contact Gabriela Lopez Escobedo at (505) 665-7352 or David Gregory at (505) 667-5808 if you have any questions.

Sincerely,

David McInroy, Acting Program Manager
Environmental Restoration Project
Los Alamos National Laboratory

Sincerely,

for
Everett Trollinger, Project Manager
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