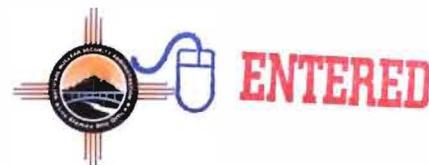




Environmental Programs
P.O. Box 1663, MS M991
Los Alamos, New Mexico 87545
(505) 606-2337/FAX (505) 665-1812

TACO



National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 606-2132

Date: MAY 17 2010
Refer To: EP2010-0232

James Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Subject: Submittal of the Documentation of Completion of Cross-Vane Structure Corrective Maintenance Actions in Pueblo Canyon

Dear Mr. Bearzi:

In accordance with the New Mexico Environment Department's (NMED's) Approval of Extension Request Completion of Modifications to the Cross-Vane Structures Located in Pueblo Canyon (LANL-HWB-08-047) letter, dated January 29, 2010, Los Alamos National Laboratory has completed the modifications to the cross-vane structures in Pueblo Canyon. These actions were completed as required by NMED's letter, Direction to Correct Cross-Vane Structures in Pueblo Canyon, dated December 3, 2009. The modifications were completed in the field by April 30, 2010, per the requirements of the letter.

If you have any questions, please contact Steve Veenis at (505) 667-0013 (veenis@lanl.gov) or Nancy Werdel at (505) 665-3619 (nwerdel@doeal.gov).

Sincerely,

Michael J. Graham, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office



MG/DG/DM/SV:sm

Attachment: Documentation of Completion of Cross-Vane Structure Corrective Maintenance
Actions in Pueblo Canyon (LA-UR-10-1876)

Cy: (w/enc.)
Neil Weber, San Ildefonso Pueblo
Nancy Werdel, DOE-LASO, MS A316
Steve Veenis, EP-CAP, MS K490
RPF, MS M707 (w/ two CDs)
Public Reading Room, MS M992

Cy: (Letter and CD and/or DVD only)
Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE-OB, MS M894
David Cobrain, NMED-HWB, Santa Fe, NM
Danny Katzman, EP-ET-DO, MS M992
Dennis Romero, EP-ET-DO, MS K490
Kristine Smeltz, EP-WES, MS M992

Cy: (w/o enc.)
Tom Skibitski, NMED-OB, Santa Fe, NM
Annette Russell, DOE-LASO (date-stamped letter emailed)
Dave McInroy, EP-CAP, MS M992
Michael J. Graham, ADEP, MS M991
IRM-RMMSO, MS A150 (date-stamped letter emailed)

Documentation of Completion of Cross-Vane Structure Corrective Maintenance Actions in Pueblo Canyon

The project to implement modifications to the three cross-vane structures located in Pueblo Canyon has been completed. As directed by the New Mexico Environment Department (NMED) in its December 3, 2009, letter, "Direction to Correct Cross-Vane Structures in Pueblo Canyon Los Alamos National Laboratory" (EPA ID# NM0890010515 LANL-HWB-08-047), this work involved the following four activities.

First, the tapers of the top surfaces of the boulders that make up the structures were adjusted so the boulders comprising the vertex of each structure are at the elevation of the existing stream channel, and the boulders anchoring the structure have been extended to the full stream bank elevation.

Second, the structures extend at approximately 30-degree angles from the stream banks to the vertex of each structure. The structures have been keyed into the stream bank at distances ranging from two to four times the diameters of the boulders that make up the in-channel portions of the structures.

Third, all gaps in the structures have been filled either by adjusting the boulders and retrenching them or by trenching in smaller boulders between and in front of the existing gaps.

Finally, the vertex of each structure has been lowered by 6 in. to 1 ft, so there is an elevation difference of 1.75 to 2.50 ft between the vertex and the anchor legs of each structure, with an approximate 2% to 3% grade on each leg and less than 1 ft of elevation difference between each adjoining boulder in the structures.

Figures 1 through 3 show the finished structures. The references in the figures to cross vane 1 refer to the westernmost structure, cross vane 2 denotes the middle structure, and cross vane 3 refers to the easternmost structure in the canyon.



Figure 1 Pueblo Canyon cross vane 1 looking eastward (downcanyon). Note that the vertex of the structure is at stream-bed elevation.



Figure 2 Pueblo Canyon cross vane 2 looking eastward (downcanyon). Note that the vertex is at the elevation of the stream bed, and the gaps in large rocks are filled.



Figure 3 Pueblo Canyon cross vane 3 looking westward (upcanyon). Note that the vertex is at the elevation of the stream bed, and the gaps in the large rocks are filled.