



State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
 P.O. Box 5400
 Albuquerque, New Mexico 87185-5400

GARY E. JOHNSON
 GOVERNOR

MARK E. WEIDLER
 SECRETARY

EDGAR T. THORNTON, III
 DEPUTY SECRETARY

Memorandum

TO: Stephanie Kruse, NMED, HRMB
 FROM: *WPM* William P. Moats, NMED, DOE OB
 DATE: September 9, 1997

RE: SNL ER Site 28-2

George Lasker, U. S. Department of Energy (DOE), in his letter of August 18, 1997 (copy attached), asks Benito Garcia, Chief HRMB/NMED, to consider the "expense and risk of sending additional personnel into this mine against its potential for risk to human health and the environment". In support of his position, Mr. Lasker encloses a memorandum from Chris DeWitt, Kirtland Air Force Base, to DOE dated August 4, 1997 (copy attached).

In his memorandum, Mr. DeWitt does not address characterization costs or safety issues. Furthermore, his memorandum includes no significant information beyond that already provided to the NMED in Sandia National Laboratories' (SNL) No Further Action (NFA) proposal for the site (the NFA proposal has been rejected by HRMB). Although the "tone" of his memorandum implies that Mr. DeWitt possesses newly-acquired historical information, this is not the case, as determined in a phone conversation between Mr. DeWitt and myself on September 4, 1997. Mr. DeWitt's belief that the concrete block is a Klotz device is nothing more than his personal opinion; which is not ~~been~~ supported by fact. Thus, the potential exists that ER Site 28-2 was used for the disposal of radioactive and/or hazardous waste.

The DOE is either unwilling or unable to provide appropriate information to the NMED regarding the purpose of post-mining activities at ER Site 28-2. I am aware that DOE and SNL have proposed, in lieu of any site characterization, to do a "worst-case risk assessment". However, as you know, a risk assessment based only on assumptions and speculation isn't worth the paper it's printed on. In my opinion, HRMB should require that the site be properly characterized to ensure protection of human health and the environment. Proper characterization will require sampling residues behind the concrete block, and the removal of the concrete block and soil backfill to look for any buried waste.

cc: John Parker, NMED, Chief DOE OB
 Roger Kennett, NMED, DOE OB
 William Stone, NMED, DOE OB
 Barbara Hoditschek, NMED, SWQB

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SNL 1081



HSWA SNL 1332



DEPARTMENT OF THE AIR FORCE
377th Air Base Wing (AFMC)

4 August 1997

MEMORANDUM FOR DOE KAO. (ATTENTION MR. JOHN GOULD)

FROM: 377 ABW/JA
2000 Wyoming Blvd SE
Kirtland AFB NM 87117-5659


Subject: ER Site No. 28-2

1. During a base-wide survey of all mines and prospects located in the DoD/DOE U. S. Forest Service Withdrawal Area, the ER Site No.28-2 was investigated on 10 and 13 August 1993. Formerly known as MS-B, this site was also previously listed on Kirtland AFB's RCRA Part B Permit and as IRP Site No. RW-49. The primary purpose of the investigation was to identify those sites where evidence suggested post-mining activity. Eighty seven shafts, pits, trenches, and adits were investigated. Of these, seven were identified for closer examination, as evidence suggested other activities may have been conducted at these sites after the period of mining. Four of the sites were listed as part of SNL's ER No. 28. One of the four is the subject site. Kirtland AFB conducted an RFI at the three remaining sites and found no evidence of contamination.

2. The ER Site No. 28-2 consists of one adit that is part of the mine workings of the former Quail Lode claims. The ore deposition at this site is associated with fracture-filling hydrothermal vein deposits in faulted and brecciated Precambrian granite and granite gneiss in a set of northerly striking, steeply dipping faults and fractures. Mineralization consists primarily of fluorite and quartz with very minor galena and barite. The entrance to the adit has been partially blocked and was posted with radiation hazard signs. Numerous radiological surveys conducted by the Air Force found no levels above background. It is apparent the signs were placed to discourage unauthorized entrance. This practice has been noted elsewhere on base, also to protect cultural features.

3. The site was easily accessed at the time by climbing the pile of soil placed at the portal and entering a small opening. The adit extends to the south-southwest to a point 50 feet from the portal before turning to the southeast for 20 feet. At the turn in the adit, a drift extends to the west for 30 feet and then turns to the south for a distance of 60 feet. There is a large concrete plug located 20 feet from the face of the drift. This plug nearly blocks the drift and appears to have moved after it was placed. There are pile of brown soil located at the entrance to the drift, at the turn in the drift, and in front of the concrete plug. The soil behind the plug is dark brown to black. It appears the soil was brought into the mine in burlap or canvas sandbag that have since rotted away. The yellow tape used to seal the bags is all that remains. It is possible, however, the bags were cut and the soil was dumped onto the piles. The concrete plug acted as a Klotz device to attenuate the gas pressure and shock waves from detonations, as did the piles of soil. Two-conductor black detonation cable is visible protruding from the first soil pile. The pile of soil and rock at the portal has occasionally directed slope runoff into the adit during heavy rains, and there has been some minor seepage from fractures, resulting in some areas of precipitate buildup and slimy mud.

4. All evidence observed indicate this adit was used for various ordnance and detonation tests. Some tests may have been conducted to support design of underground munitions storage facilities as indicated by the Klotz block and soil piles. Other detonation tests were conducted in this and other adits, and p-wave velocities measured at the ER 67 Site (Former IRP Site No. RW-48). These tests were likely conducted to determine if p-wave signatures of conventional blasts were significantly and consistently different from those generated by nuclear blasts. No evidence of disposal was observed in this or any other mines investigated.


CHRISTOPHER B. DeWITT, R.P.G
Chief, Restoration Branch
Environmental Management Division