



United States  
Department of  
Agriculture

Forest  
Service

Santa Fe  
National Forest

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Reply To: 7400

Date: April 13, 1992

National Response Center  
United States Coast Guard Headquarters  
Rm 2611  
2100 2nd St. SW  
Washington, DC. 20593

To Whom it May Concern,

The Santa Fe National Forest is writing to advise you of a situation occurring on lands currently being administered by the Santa Fe National Forest. These lands were previously withdrawn from the Santa Fe National Forest by the Department of War in connection with the Manhattan Project, and were most recently managed by the Department of Energy as a shooting range. These lands are currently under consideration for exchange. The future use of the site could potentially be a residential area.

The Forest Service is providing this information pursuant to 42 U.S.C. 9663. As suggested by 40 CFR 300.405(d), the following information is being provided:

- a) The site is referred to as the Cemetery Tract Shooting Range. It is located on Santa Fe National Forest administered lands. The site is adjacent to the City of Los Alamos, in Los Alamos County, New Mexico. The legal description is T19N, R6E, SE 1/4 of Section 4.
- b) The type of material present on the site is lead slugs from small arms ammunition.
- c) The size of the material ranges from large caliber bullets to grain size fragments. It is estimated that there are several tons of lead slugs in approximately 870 Cubic Yards of potentially contaminated material.
- d) The shooting range has been in use since the early 1940's when the site was withdrawn from the Santa Fe National Forest by the Department of War for the Manhattan Project.
- e) The DOE released the shooting area and adjacent land back to the National Forest in 1976, after it had been out of service for a while. The site has been used unofficially by the general public in the intervening years. Since that release to the National Forest the DOE declared this site a Solid Waste Management Unit (SWMU).

Caring for the Land and Serving People



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Since this site was declared a SWMU, it was required that we run a Total Concentrate Leaching Procedure (TCLP) test on soil samples from the site. We question how well this test replicates the natural conditions of the Cemetery Tract since no other waste was apparent, and the site has not been used as a landfill or dump to the best of our knowledge. Preliminary tests of soil samples collected from the site resulted in 11 out of 21 samples failing the TCLP test for leachability of heavy metals. This process is EPA's litmus test for contaminated soil to indicate if enough heavy metal is present to be leached under certain acidic conditions. The acidic level used in the test ranges from a pH of 2.83 to 2.92. In this instance, the samples that failed the test were from backstop berms in the old shooting range.

The TCLP test may be valid for sites that are located in areas or regions that have acid rains, acid dry deposition, or naturally high acid soil conditions, within close proximity to water. However, this is not the case for the old shooting range at Los Alamos. There is a deposit of lead slugs at the site that will leach sufficient amounts of lead to fail the TCLP test when subjected to an artificial acidic condition. The on-site soils at the old shooting range vary in pH from 6.4 to 7.4, with the average pH being 6.97 which is essentially neutral. Therefore, leaching of the lead shot is not likely unless some drastic change occurs at the site.

Possible ground water contamination is an issue raised by the New Mexico Environmental Department and the Environmental Protection Agency. The shooting range is located on top of a small ridge that is composed of the top member of the Bandelier Tuff (Tshirege Member), with associated soils. The thickness of this volcanic unit is about 600 feet. The Bandelier overlies the Puye Formation which is lithic tuff and lahar (mud flow) unit, which is about 700 feet thick. Both of these units overlie the Santa Fe Formation that is an arkosic sediment. The Santa Fe Formation would be the unit that would be the ground water bearing unit. It is unlikely that this unit would ever be adversely effected by the lead shot deposit setting about 1,300 feet above. It is possible, but unlikely, that a stratified water table would exist between the shooting range and the Santa Fe Formation.

The Forest Service, however, takes the position that a Comprehensive Environmental Response Liability and Compensation Act (CERCLA) release of a reportable quantity of a hazardous substance has not occurred at the site for the following reasons:

- 1) The ammunition is exempt from CERCLA requirements due to the consumer product exemption (42 USC 9601(a)).
- 2) The lead particles of the size found at the site are not required to be reported by 40 CFR 302.6(d).
- 3) The TCLP test does not replicate leachability found under the natural conditions occurring at this site.

Until we are advised otherwise, we will assume that we have complied with any possible 42 USC 9603 reporting requirements. We will also assume that until otherwise notified, the Cemetery Tract Shooting Range site will not be registered with the NRC or listed on the Federal Agency Hazardous Waste Compliance Docket. The national ramifications of this situation would be extraordinary since every formal and informal shooting range would be required to be reported under 42 USC. 9603.





Recognizing the potential use of the site, and it's current designation as a SWMU, it is the intention of the Forest Service to work with the Department of Energy to address how to best contain the material prior to the land being exchanged. Final disposition of this matter can not be resolved until there is an official resolution to CERCLA concerns.

If EPA does not agree with the position outlined in this notice, please notify me within 30 days.

Al Defler  
FOREST SUPERVISOR

cc: OGC (Pitt)  
DOE  
RO ENG (H.Kringler)  
Española Ranger District  
EPA Region 6 (J. Burleson)  
City of Los Alamos

