

4-1-2000

Justification for Class III Permit Modification April 2000, Solid Waste Management Unit 7, Operable Unit 1309, Round 2

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**Justification for
Class III Permit Modification**

April 2000

**Solid Waste Management Unit 7
Operable Unit 1309
Round 2**

(RCRA Permit No. NM5890110518)

NFA Originally Submitted August 28, 1995

NOD Originally Submitted October 1996

NOD Originally Submitted November 1999

NFA

**Justification for
Class III Permit Modification**

April 2000

**Solid Waste Management Unit 7
Operable Unit 1309
Round 2**

NFA Originally Submitted August 28, 1995

**PROPOSAL FOR
NO FURTHER ACTION**

Site 7, Gas Cylinder Disposal Site
Operable Unit 1309

SANDIA NATIONAL LABORATORIES/NEW MEXICO

1. Introduction

1.1 ER Site Identification, Number, and Name

Sandia National Laboratories/New Mexico (SNL/NM) is proposing an administrative no further action (NFA) decision for Environmental Restoration (ER) Site 7, Gas Cylinder Disposal (Arroyo del Coyote), Operable Unit (OU) 1309. ER Site 7 is listed in the Hazardous and Solid Waste Amendment (HSWA) Module IV (EPA August 1993) of the SNL/NM Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Facility Permit (NM5890110518) (EPA August 1992).

1.2 SNL/NM Administrative NFA Process

This proposal for a determination of an administrative NFA decision has been prepared using the criteria presented in Section 4.5.3 of the SNL/NM Program Implementation Plan (SNL/NM February 1994). Specifically, this proposal will "contain information demonstrating that this SWMU has never contained constituents of concern that may pose a threat to human health or the environment" [as proposed in the Code of Federal Regulations (CFR), Section 40 Part 264.51(a) (2)] (EPA July 1990). The HSWA Module IV contains the same requirements for an NFA demonstration:

Based on the results of the RFI [RCRA Facility Investigation] and other relevant information, the Permittee may submit an application to the Administrative Authority for a Class III permit modification under 40 CFR 270.42(c) to terminate the RFI/CMS [corrective measures study] process for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous waste including hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required in 40 CFR 270.42(c) (EPA August 1993).

In requesting an administrative NFA decision for ER Site 7, Gas Cylinder Disposal, this proposal is using existing administrative/archival information, recent (1994) interviews and enlarged aerial photographs to satisfy the permit requirements. This unit is eligible for an administrative NFA proposal based on one or more of the following criteria taken from the RCRA Facility Assessment Guidance (EPA October 1986):

- Criterion A: The unit has never contained constituents of concern
- Criterion B: The unit has design and/or operating characteristics that effectively prevent releases to the environment
- Criterion C: The unit clearly has not released hazardous waste or constituents into the environment

Specifically, ER Site 7 is being proposed for an administrative NFA decision because the SWMU has never contained constituents of concern (Criterion A).

1.3 Local Setting

SNL/NM occupies 2,829 acres of land owned by the Department of Energy (DOE), with an additional 14,920 acres of land provided by land-use permits with Kirtland Air Force Base (KAFB), the United States Forest Service (USFS), the State of New Mexico, and the Isleta Indian Reservation. SNL/NM has been involved in nuclear weapons research, component development, assembly, testing, and other nuclear activities since 1945.

The Gas Cylinder Disposal Site is located southwest of Pennsylvania Avenue and southeast of the access road to Technical Area (TA) III and V (Figure 1). The site is adjacent to the southeast end of Site 16, Open Dump. It is enclosed with a fence measuring 400 feet x 450 feet. It is on a terrace above the Arroyo del Coyote flood plain.

2. History of the SWMU

2.1 Sources of Supporting Information

In preparing the request for an administrative NFA decision for ER Site 7, a background study was conducted to collect available and relevant site information. Interviews were conducted with a retired Sandia National Laboratories/New Mexico (SNL/NM) employee and Kirtland Air Force Base (KAFB) staff who are familiar with site operational history.

The following information sources were available for the use in the evaluation of ER Site 7:

- Three interviews and personnel correspondence. Two KAFB employees were recently interviewed (Oct/Nov 1994) who have direct knowledge of activities at Site 7 and an interview was conducted in December 1994 with a retired SNL/NM employee to obtain clarification of his original statement in 1985 about Site 7.
- Fifteen historical aerial photographs spanning 20 years. A detailed study with enlarged aerial photographs was performed in 1994 (Ebert and Associates, 1994).

2.2 Previous Audits, Inspections, and Findings

ER Site 7 was first listed as a potential release site based on the Comprehensive Environmental Assessment and Response Program (CEARP) interviews in 1985 (DOE September 1987), which noted alleged unauthorized dumping and gas cylinder disposal occurred at this site in the mid to late 1970s. The Comprehensive Environmental Response, Compensation, and Liability Act finding was positive; however, no Hazard Ranking System or Modified Hazard Ranking System migration mode score could be calculated due to insufficient information. Subsequent to the CEARP inspection, the U.S. Environmental Protection Agency (EPA) conducted a RCRA Facility Assessment (RFA). This SWMU was not included in the RFA report (EPA April 1987).

2.3 Historical Operations

The site was originally used as a source of gravel and is now a landfill with both covered and uncovered wastes. Visible waste appears to be construction debris.

Historical knowledge of the site is limited; however, gas cylinders allegedly were buried at the site in the mid-to-late 1970s (DOE 1985). Recently, this information has proven incorrect. Recent information indicates that SNL/NM did not dispose of any waste at this site and no gas cylinders were buried at Site 7.

3. Evaluation of Relevant Evidence

3.1 Unit Characteristics

Unit characteristics do not apply to this site.

3.2 Operating Practices

Hazardous wastes were not managed or contained at ER Site 7.

3.3 Presence or Absence of Visual Evidence

The 1987 aerial photograph shows that the site was a large pit (25 feet or deeper). No evidence of disposal along the margins of the pit was evident. Now, the western half of the site is filled to the natural ground level. A partially-filled pit still exists in the eastern part of the site to a depth of approximately 30 to 40 feet.

3.4 Results of Previous Sampling/Surveys

No previous sampling/surveys exist for Site 7.

3.5 Assessment of Gaps in Information

Additional information was obtained because no environmental sampling data exist to verify the absence of waste/gas cylinders.

3.6 Rationale for Pursuing an Administrative NFA Decision

Interpretation of enlarged aerial photographs of Site 7 indicates the following:

- Excavation for sand and gravel first began in 1973.
- By 1975, a large gravel pit had been opened.
- By 1986, the gravel pit was expanded to fit within the present day perimeter fence.

- By 1989, the northern two-thirds of the gravel pit had been backfilled, with some construction debris exposed on the northern wall of the remaining portion of the original pit.
- The surface of the filled portion of the pit has been leveled and now provides surface storage for equipment and containers (Ebert and Associates 1994).

Two recently interviewed employees have direct knowledge of activities at Site 7 beginning in 1980. The following information was communicated by these employees either during a telephone conversation on October 17, 1994, (KAFB employees 1994a) or in a meeting on November 2, 1994 (KAFB employees 1994b):

- The gravel pit was actively mined by SNL/NM and KAFB personnel from 1980 to 1986.¹ KAFB was the sole owner of the area used as a gravel source.
- Around 1986, part of the Albuquerque Veterans Administration (VA) Hospital was dismantled and the rubble from the building was dumped in the northern portion of the gravel pit and buried with clean fill, which was graded to form a roughly level surface. All asbestos associated with the rubble and the steam boilers were completely removed prior to burial. The purpose of the fence was to prevent contractors from salvaging buried scrap and to prevent any unauthorized dumping in the pit. The fence was erected shortly after the hospital debris was dumped and buried.
- After the fence was erected and the site topography was worked into its present condition, the KAFB Defense Evaluation Support Activity (DESA) unit used the fenced area as a storage yard for vehicles and test equipment. The DESA operations have since been transferred to another location. The exact time frame that DESA used the area is not known.
- Neither KAFB employee who was interviewed knew of any SNL/NM involvement (other than gravel excavation) or disturbance within the area of Site 7.

A statement made during the CEARP investigation by a retired SNL/NM employee was the basis for existence of Site 7. On October 9, 1985, this individual said during an interview:

"About 8 to 10 years ago, some poisonous gas cylinders were buried in a 6-to 8-foot pit about 3/4 of a mile south of Building 9966. They also dug a pit in the arroyo and buried about 300 cylinder bottles..." (DOE 1985).

In a conversation with this retired SNL/NM employee on December 6, 1994, the following clarifications were obtained:

¹ Apparently the KAFB personnel did not know of gravel operations between 1973 and 1980.

- About 300 gas cylinders were buried in an arroyo located south of the Thunder Range test area, approximately 1.5 miles south of Building 9965². The gas cylinders were placed in the pit that was 6-to 8-feet deep and the retired employee was instructed to perforate each cylinder using explosive charges and allow the gas in the cylinders to escape.
- Absolutely no gas cylinders were ever buried in the portion of Arroyo del Coyote located west of the intersection of Pennsylvania Avenue and the TA III access road. This area of the arroyo includes ER Sites 7 and 16. No gas cylinders were ever buried along the entire length of Arroyo del Coyote.

4. Conclusion

Based upon the evidence cited above, ER Site 7 has never contained constituents of concern. Therefore, ER Site 7 is recommended for an NFA determination.

5. References

5.1 ER Site References

Department of Energy (DOE), Albuquerque Operations Office, October 1985, Interviews with current and retired SNL/NM personnel, conducted by personnel from the Los Alamos National Laboratory in support of the Comprehensive Environmental Assessment and Response Program.

KAFB Employees 1994a, Telephone conversation with Eric Larsen of SNL/NM Department 7582 on October 17, 1994.

KAFB Employees 1994b, Meeting at KAFB Environmental Services Office with Jim Brinkman (SNL/NM Department 7582), Marlene Hyde (Lamb and Associates), Paul Darr (R.F. Weston, Inc.), David Hunter (Lamb and Associates), Eric Larsen, (SNL/NM Department 7582) on November 2, 1994.

U.S. Environmental Protection Agency (EPA), August 1993. "Module IV of RCRA Permit No. NM 5890110518, EPA Region VI," issued to Sandia National Laboratories, Albuquerque, New Mexico.

U.S. Environmental Protection Agency (EPA), August 1992. "Hazardous Waste Management Facility Permit No. NM5890110518, EPA Region VI," issued to Sandia National Laboratories, Albuquerque, New Mexico.

² The location appears to be relative to Building 9965 rather than Building 9966. Now the location of the alleged buried cylinders is designated as Site 6A.

U.S. Environmental Protection Agency (EPA), July 1990. "Corrective Action for Solid Waste Management Units (SWMU) at Hazardous Waste Management Facilities, Proposed Rule," *Federal Register*, Vol. 55, Title 40, Parts 264, 265, 270, and 271.

5.2 Reference Documents

Department of Energy (DOE), Albuquerque Operations Office, Environmental Safety and Health Division, Environmental Program Branch, September 1987, draft "Comprehensive Environmental Assessment and Response Program (CEARP) Phase I: Installation Assessment, Sandia National Laboratories, Albuquerque, New Mexico."

Sandia National Laboratories/New Mexico (SNL/NM), August 1994. "Environmental Restoration Project Information Sheet for Site 7, Gas Cylinder Disposal (Arroyo del Coyote)," Sandia National Laboratories, Albuquerque, New Mexico.

Sandia National Laboratories/New Mexico (SNL/NM), February 1994. Draft "Program Implementation Plan for Albuquerque Potential Release Sites," Albuquerque, New Mexico.

U.S. Environmental Protection Agency (EPA), April 1987. "Final RCRA Facility Assessment Report of Solid Waste Management Units at Sandia National Laboratories, Albuquerque, New Mexico," Contract No. 68-01-7038, EPA Region VI.

U.S. Environmental Protection Agency (EPA), October 1986. "RCRA Facility Assessment Guidance," EPA/530-86-053, PB87-107769, Washington, D.C.

5.3 Aerial Photographs

Ebert and Associates, November 1994. "Photo-Interpretation and Digital Mapping of ER Sites 7, 16, 45, and 228 from Sequential Historical Aerial Photographs," for Sandia National Laboratories, Albuquerque, New Mexico.

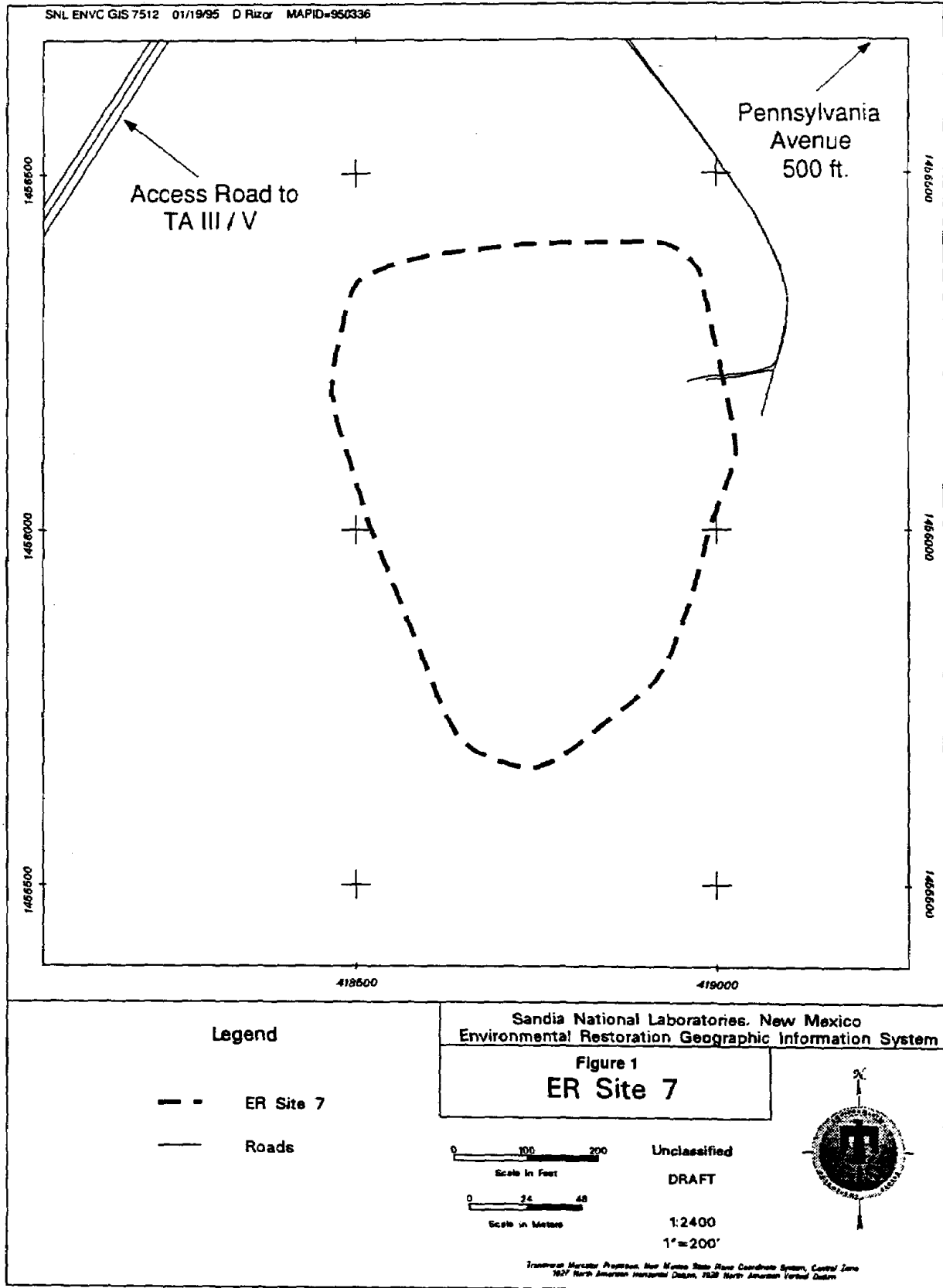


Figure 1. Map Showing Location of ER Site 7

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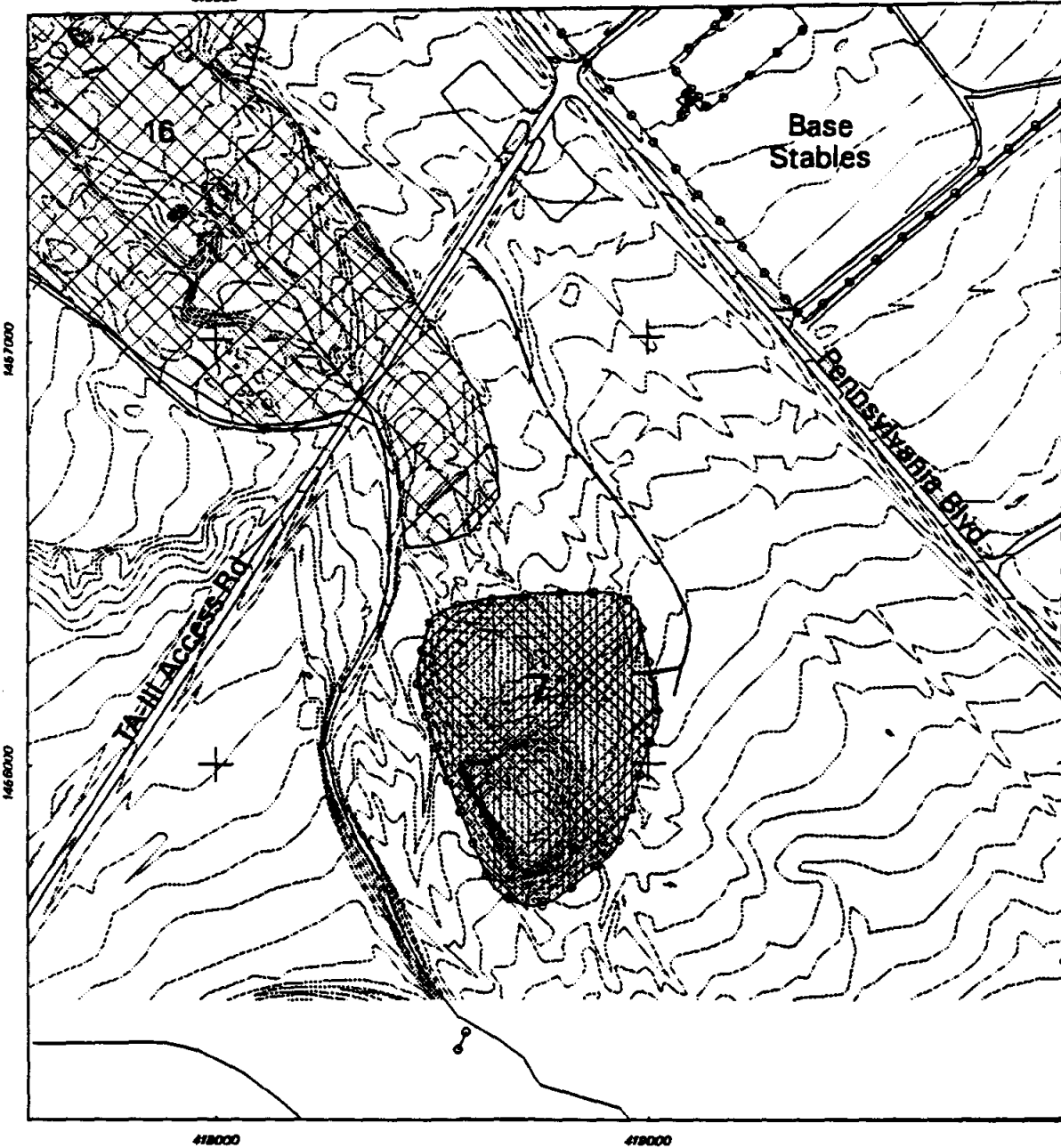
6. Site 7, OU 1309, Gas Cylinder Disposal Pit

a. Visible waste appears to be construction debris from a hospital demolition; however, historical knowledge of the site is limited. The unit has clearly managed solid wastes. SNL/NM, however, has not demonstrated that Site 7 was never used to manage hazardous waste. Because it appears that no sampling has been conducted at Site 7, some limited sampling might be appropriate. This might be accomplished in part by collecting and analyzing run-off drainage from the deepest uncovered portion of the gravel pit at the site. Additionally, borehole soil/sediment samples should be collected at depths within and below the waste layer of the unit and analyzed for VOCs, SVOCs, total petroleum hydrocarbons, explosives, gross alpha, gross beta, and gamma spectrum.

Response: See the response below in comment b.

b. **RECOMMENDATION:** Based upon SNL/NM's proposal, some limited sampling should be conducted to determine whether Site 7 is appropriate for NFA. Additionally, it should be clearly determined whether this is a SNL/NM or Kirtland Air Force Base (KAFB) ER site.

Response: ER Site 7 is currently on SNL/NM's HSWA Permit. SNL/NM has determined that ER Site 7 is not a site that warrants further characterization or remediation. This determination is based upon four findings. (1) As discussed in the June 1995 *Proposal for NFA - Site 7*, a review of historical aerial photography and personnel interviews has shown that SNL/NM used the site in 1980 to 1986 for the sole purpose of obtaining gravel. SNL/NM did not dump any hazardous material or conduct any testing operations at the site. (2) The site is located on Air Force property. The concrete debris and scrap metal present at the site are from the demolition of a U.S. Department of Defense (DoD) - Veterans Administration hospital. The area was fenced in about 1986 to prevent unauthorized scavenging or dumping (Figure 1). (3) The erroneous listing of the site as an environmental concern during the mid-1980s Comprehensive Environmental Assessment and Response Program (CEARP) process was solely based on the misinterpretation of the original CEARP interview notes. A single CEARP interview comment that stated "...some poisonous gas cylinders were buried in a 6 to 8 ft pit about 3/4 of mile south of building 9966..." was erroneously attributed the present location of ER Site 7. Subsequent discussions with the original interviewee has both confirmed this misinterpretation and that no gas cylinders were disposed of in the vicinity of Arroyo del Coyote. The true location of the buried gas cylinders was in Thunder Range at ER Site 6A, which is located about two miles south of ER Site 7. In 1995, the Southwest Test Area OU



Legend






-  ER Site 7
-  Other ER Sites
-  2 Ft Contour
-  Roads
-  Fences

Figure 1 ADS 1309 ER Site 7



Sandia National Laboratories, New Mexico
Environmental Geographic Information System

excavated the gas cylinders at ER Site 6A. (4) SNL/NM has already conducted an exhaustive (100%-coverage) radiological survey. A team of radiological technicians used Crutch Gamma Scintillometers to sweep the entire site. No areas of gamma activity that were 30 percent or greater than natural background were found at ER Site 7 (RUST Geotech, 1994). Based upon these four findings, SNL/NM does not plan to conduct any sampling at ER Site 7 and reiterates the request that the site be approved for NFA status.

7. **Site 23, OU 1309, Disposal Trenches**

a. **Unless additional information (e.g., which isotope of thorium, other radioactive materials, size and distribution of sources) becomes available, a more thorough and areally expanded radiation survey should be conducted.**

Response: The clearest interpretation of the information gathered on this site is that SNL/NM did not disturb this site. No DOE, SNL/NM, or KAFB documents indicate that SNL/NM has ever conducted field operations at ER Site 23. The reason that ER Site 23 has been investigated was that an SNL/NM employee, who was interviewed during the CEARP investigation in 1985, had "... heard that men in white anti-C suits and heavy equipment were digging in the staked area of the arroyo near the golf course in the late 1950s or early 1960s." Subsequent phone conversations with this employee have cast doubts on the interviewee's recollection of the actual location. The most plausible conclusion is that the interviewee had attributed some Defense Nuclear Agency (DNA) training at the KAFB RW-10 sites to ER Site 23. The RW-10 training area known as TS-4 is located over a slight ridge and a mere 1,050 ft north of ER Site 23 (Figures 1, 2, and 3). According to KAFB Installation Restoration Program Chief Mr. Chris DeWitt, the DNA has used the RW-10 sites since the 1960s for training emergency-response teams that respond to transportation accidents involving nuclear weapons. Eight RW-10 sites are currently being investigated as part of the KAFB Installation Restoration Program (IRP), which is managed by the DoD. As shown on Figure 4, the locations of these sites have been documented since at least 1976; however, the DNA has not apparently used radiological material at ER Site 23. Sealed thorium-232 sources have been used at the RW-10 sites.

SNL/NM has already conducted an exhaustive (100%-coverage) radiological survey in the 'staked area' that was believed by the interviewee to be marked by faded-yellow, metal posts (Figure 3). The survey was conducted in 1994 as part of the ongoing Sandia Surface Radiological Survey project. A team of radiological technicians used Crutch Gamma Scintillometers to sweep a 100 ft by 100 ft grid surrounding each suspected trench location. Each Crutch Gamma Scintillometer was constructed of a Mount Sopris portable gamma scintillometer

**General
Risk Assessment**

GENERAL RISK ASSESSMENT COMMENTS

1. **Conclusions throughout the report are based largely on comparisons with previously established upper tolerance limits (UTLs). These UTLs have not been approved by NMED or limits (UTLs). These UTLs have not been approved by NMED or EPA and are therefore considered draft. The presented values have been compared with protective screening values for human health. Both residential and industrial scenario screening values have been considered since Sandia does not have a final future land use plan at this time.**

Response: DOE/SNL understands that UTLs are considered draft until approved by NMED and EPA. As of April 1996, DOE/SNL has a final future land use plan and risk assessments will use future land use scenarios based upon that plan.

2. **The sites with reported radionuclides above background levels were evaluated based on a DOE established acceptable dose. EPA Region 6 policy requires that the evaluation of risk to radionuclides include an estimation of potential carcinogenic risk. A revision to the risk evaluation is requested.**

Response: DOE/SNL will provide potential carcinogenic risk and dose due to radionuclide contamination in future NFA proposal submissions and resubmissions.

3. **For all sites, the following issues must be addressed: 1) potential ecological risk posed at the site, 2) the site as a potential source for ecological risk in transport of constituents through the septic system into Tijeras Arroyo, and 3) detection limits relative to human health-based screening levels.**

Response: DOE/SNL is currently working on ecological risk assessments for all ER Sites which will be submitted as a supplemental document to NMED upon completion. DOE/SNL considers detection limits in preparing human health-based risk assessments.

**Site-Specific
Risk Assessment**

OU 1309

6. Site 7, OU 1309, Gas Cylinder Disposal Site

This portion of the document does not contain risk assessment information for review.

Response: The need for a risk assessment is not applicable to ER Site 7 because no soil samples have been collected there. The collection of soil samples is not warranted. The section Site 7, OU 1309, Gas Cylinder Disposal Site in NMED Site-Specific Technical Comments discusses the findings that support the SNL/NM request for ER Site 7 to be granted NFA status.

7. Site 23, OU 1309, Disposal Trenches

This portion of the document does not contain risk assessment information for review.

Response: The need for a risk assessment is not applicable to ER Site 23 because no soil samples have been collected there. The collection of soil samples is not warranted. The section Site 23, OU 1309, Disposal Trenches in NMED Site-Specific Technical Comments discusses the findings that support the SNL/NM request for ER Site 23 to be granted NFA status.

8. Site 40, OU 1309, Oil Spill Site

Any value based on TPH does not allow for the evaluation of potential risk.

Response: The issue of a risk evaluation is not applicable because NMED has already granted NFA Status to ER Site 40 (Oil Spill Site) based upon NMED Underground Storage Tank regulations.

9. Site 46, OU 1309, Old Acid Waste Line Outfall Site

See general comment on risk analysis of radionuclides. [The sites with reported radionuclides above background levels were evaluated based on a DOE established acceptable dose. EPA Region 6 policy requires that the evaluation of risk to radionuclides include an estimation of potential carcinogenic risk. A revision to the risk evaluation is requested.]

Response: SNL/NM has recently completed, with EPA Region VI concurrence, a quantitative risk assessment for all contaminants, including cancer-causing radionuclides, in soil. The section Site 46, OU 1309, Old Acid Waste Line Site in NMED Site-Specific Technical Comments discusses the risk assessment.

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OU 1309

Site-Specific Comments

OU 1309

ER Site 7, Gas Cylinder Disposal Pit

Additional site characterization work proposed includes:

1. **Collect subsurface soil samples from within the waste layer and immediately below the bottom of the landfill.**
2. **Subsurface samples will be collected from at least four (4) borings or trenches. At least one sample per boring/trench will be collected within 5 ft beneath the landfill. At least two samples per boring/trench will be collected at locations within the waste layer (more samples will be collected if the waste layer exceeds 15 ft thick).**
3. **The soil samples will be analyzed for radiological constituents, metals, volatile organic compounds, semi-volatile organic compounds, and high explosives.**

Response: Unfortunately the name for ER Site 7 is misleading and refers to ER Site 6A, a gas cylinder disposal pit that was remediated in 1995. ER Site 7 contains construction and demolition debris from the Veteran's Administration (VA) Hospital. Prior to disposal of the construction and demolition debris, SNL/NM used the location as a sand and gravel quarry from 1980 to 1986.

DOE, SNL/NM, and KAFB's Environmental Management agreed on November 15, 1999 that responsibility for this site should be transferred to the KAFB Installation Restoration Program (IRP). The IRP intends to accept ownership for this site. DOE and KAFB are currently working on the transfer process. Therefore, SNL/NM will not be performing the additional proposed site characterization. After the IRP assumes responsibility for this site, SNL/NM will submit an administrative NFA proposal for ER Site 7.

ER Sites 46, 232, 233, 234, 227, 229, 230, and 231 (OU 1309 Outfalls)

The outfalls at ER Sites 46 and 227 are of the most concern to the HRMB; the others, which are storm drain outfalls, are clustered near ER sites 46 and 227. More specifically, ER Sites 229, 230, and 231 are grouped near ER Site 227; whereas, ER Sites 232, 233, and 234 are located near ER Site 46. Additional site characterization work proposed includes:

1. **Locate each outfall accurately.**

Response: SNL/NM will locate each outfall accurately for ER Sites 46, 227, 229, 230, 231, 232, 233, and 234. The recent discussions have revealed that the type of water released to each site needs to be clarified. ER Site 46 received rinse waters from TA-I buildings. ER Sites 227 and 229 received rinse waters from TA-II buildings. ER Sites 230, 231, 232, and 233 currently receive storm water from TA-IV. ER Site 234 previously received storm water from TA-IV, but is now inactive. Except for ER Site 232, all of these OU 1309 sites were documented in the 2nd Round of the NFA proposals.

Site-Specific Comments

The NFA proposal for ER Site 232 was submitted in the 8th Round in July 1997; additional work for ER Site 232 is addressed in SNL/NM (1999).

- 2. Collect and analyze soil samples at the points of surface discharge and along the drainage channels. Analytical results of previous sampling will be used, to the extent possible, to meet this requirement.**

Response: SNL/NM will collect and analyze soil samples at the points of surface discharge and along the drainage channels that are unlined. More details are presented in item #4 below. Analytical results of previous sampling will be used, to the extent possible, to meet the NMED requirement. The soil samples will be collected according to the following Fiscal Year (FY) schedule: ER Site 46 (FY01), ER Site 227 (FY01), ER Site 229 (FY01), ER Site 230 (FY02), ER Site 231 (FY02), ER Site 232 (FY01), ER Site 233 (FY02), and ER Site 234 (FY02).

- 3. Collect deep soil samples and vapor samples at ER Sites 46 and 227. Two 150-ft deep boreholes should be drilled at ER Site 46; one similar borehole should be drilled at ER Site 227. The soil-vapor monitor wells will be permanent installations. Soil samples will be analyzed for radiological constituents, metals, volatile organic compounds, semi-volatile organic compounds, high explosives, hexavalent chromium, iron, and chloride.**

Response: SNL/NM will install two permanent 150-foot deep soil-vapor monitor wells at ER Site 46 and one similar monitor well at ER Site 227. At ER Site 46, the first well will be located at the end of the acid waste line, while the second well will be located at the southern end of the site. [The end (former outfall) of the acid waste line is estimated to be about 50 ft south-southwest of monitor well TJA-3.] The ER Site 227 well will be located at the eastern end of the site near the slope break. Soil samples will be analyzed for radiological constituents (gamma spectroscopy and gross alpha/beta), RCRA metals, volatile organic compounds, semi-volatile organic compounds, high explosives, hexavalent chromium, iron, and chloride. According to the FY00 baseline, performance of this fieldwork is scheduled for FY01.

- 4. Collect shallow subsurface soil samples at each storm drain outfall (two boreholes at each location at maximum depths of 5 ft). The soil samples will be analyzed for radiological constituents, metals, volatile organic compounds, semi-volatile organic compounds, and high explosives.**

Response: SNL/NM will collect shallow subsurface samples at two locations each at the storm-drain outfalls (ER Sites 230, 231, 232, 233, and 234). The samples will be collected at a depth of five ft, bgs from hand-augered boreholes. Except for ER Site 234, the boreholes for the TA-IV storm-drain outfalls will be located 5 ft and 30 ft downslope from the lowermost concrete structures at ER Sites 230, 231, 232, and 233. Not to be forgotten, ER Site 232 is unique because two storm drains are located there. At the remaining TA-IV storm-drain outfall (ER Site 234), the boreholes will be located at a similar lateral spacing with the northernmost borehole being located at the lowermost tip

Site-Specific Comments

of the site. The soil samples from each site will be analyzed for radiological constituents (gamma spectroscopy and gross alpha/beta), RCRA metals, volatile organic compounds, semi-volatile organic compounds, and high explosives.

- 5. Collect a surface soil sample upstream of the drop inlet at ER Site 230. The soil sample will be analyzed for radiological constituents, metals, volatile organic compounds, semi-volatile organic compounds, and high explosives.**

Response: SNL/NM also will collect a surface (0 – 0.5 ft, bgs) soil sample for ER Site 230. The sample will be collected upstream of the drop inlet and next to the chain-link fence. The soil sample will be analyzed for radiological constituents (gamma spectroscopy and gross alpha/beta), RCRA metals, volatile organic compounds, semi-volatile organic compounds, and high explosives.

- 6. A new ground-water monitor well will be installed at the bottom of the slope at ER Site 46. The well will be completed in the regional aquifer, if perched water is not encountered.**

Response: SNL/NM will install a groundwater monitor well at the bottom of the slope at ER Site 46. The well will be completed in the regional aquifer, if perched water is not encountered.

- 7. Summarize in written form, as applicable, all geologic, hydrologic, and ground-water quality data for all boreholes and ground-water monitor wells in the vicinity of ER Sites 46 and 227. The information requested above for the TA-2 septic systems will meet this requirement for ER Site 227, which is located adjacent to TA-2.**

Response: SNL/NM will summarize in written form, as applicable, all geologic, hydrologic, and groundwater quality data for all boreholes and groundwater monitor wells in the vicinity of ER Sites 46 and 227. This information will be presented in the Sandia North Groundwater Investigation Annual Report for FY01 or FY02.

- 8. Revise and resubmit the data tables in the NFA proposals for each site, meeting the standards achieved in the 12th Round NFA proposals.**

Response: After all the requested soil samples have been collected and the analytical results received, SNL/NM will revise and resubmit the soil-sample data tables for ER Sites 46, 227, 229, 230, 231, 232, 233, and 234 in a format meeting the standards set in the 12th Round NFA proposals. Risk assessments (human-health and ecological) will be prepared. The data tables and risk assessments will be incorporated into the 'statement of basis' format.

Reference (ER Site 7)

Sandia National Laboratories/New Mexico. Letter to Kirtland Area Office (KAO). "Transmittal of Responses to NMED for Request for Supplemental Information (RSI)," September 8, 1999.



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

06 Mar 00

MEMORANDUM FOR MR. JAMES BEARZI, CHIEF
HAZARDOUS & RADIOACTIVE MATERIALS BUREAU
NEW MEXICO ENVIRONMENT DEPARTMENT
PO BOX 26110
SANTA FE NM 87502

FROM: 377 ABW/EM
2050 Wyoming Blvd SE, Ste 126
Kirtland AFB NM 87117-5270

SUBJECT: Transfer Site from Department of Energy (DOE) to Kirtland Air Force Base

1. As required in Section F to Module IV of our RCRA Part B Permit, we are reporting an area that may have released hazardous substances into the environment and is currently listed as a SWMU on DOE's RCRA Part B Permit. This site has been identified as being the responsibility of the U. S. Air Force.

Hospital Demolition Debris Landfill:

(a) This site was identified as Sandia National Laboratories (SNL/NM) Environmental Restoration (ER) Site 7, Gas Cylinder Disposal Pit and was placed on DOE's RCRA Part B Permit. Early in their program, SNL/NM conducted a radiological survey of the site, which did not detect any contamination. Upon inspection of the site and historical data, SNL/NM determined that this site was misnamed. The actual gas cylinder disposal pit was located south of the site. The subject site was a large excavated area that was used by SNL/NM and KAFB for a number of years as a sand and gravel borrow pit. The material disposed of in the pit is construction/demolition debris, and the site is the responsibility of the U. S. Air Force.

(b) This site is located on a terrace adjacent to and above the Arroyo del Coyote flood plain, southwest of Pennsylvania Ave. and southeast of the access road to DOE's Technical Area II and V. It is enclosed with a fence measuring 400 feet X 450 feet. In 1986, the Albuquerque Veterans Administration (VA) hospital was demolished as part of a large project to construct a new VA/USAF hospital. The demolition debris was dumped into the northern portion of the gravel pit and buried with clean fill, which was graded to form a roughly level surface. All asbestos associated with the debris was completely removed prior to burial. A fence was installed around the site to prevent contractors from salvaging buried scrap and to prevent unauthorized dumping in the pit. The fence was erected shortly after the hospital demolition debris was dumped and buried.

After the fence was erected and the site was graded, the Defense Evaluation Support Activity (DESA) unit used the fenced area as a storage yard for vehicles and test equipment. The DESA operations have since been transferred to another location. Based on previous use of the site, it is unlikely the site contains contaminants of concern, but it has not been characterized, and, therefore there is no quantitative data to support a recommendation for no further action (NFA). The New Mexico Environment Department as recommended that a solid waste management unit (SWMU) assessment be conducted at the site to confirm that a release has not occurred.

2. Kirtland AFB supports removal of this site from DOE's RCRA Part B Permit agrees that the site is not the responsibility of the DOE. We propose to designate this site as an Environmental Compliance Program (ECP) Area of Concern, AOC ST-107, Hospital Demolition Debris Landfill. An enhanced SWMU assessment report (SAR) will be submitted by 30 Dec 2000.

3. Please call me at DSN: 246-0053 if you have any questions.



CHRISTOPHER B. DeWITT, GS-14
Director
Environmental Management Division

cc:

EPA Region 6 (Ms. Tellez)
NMED-HRMB (Mr. Moats)
DOE/KAO (Mr. Gould)
AFMC/CEVC (Mr. Fort)
377 ABW/JA
377 ABW/PA
377 AMDS/SGPB



**U.S. Department of Energy
Albuquerque Operations Office
Kirtland Area Office
P.O. Box 5400
Albuquerque, NM 87185-5400**

DEC 21 1999

Mr. Chris DeWitt, Manager
Installation Restoration Program
377 ABW/EMR
2050 Wyoming Blvd. SE
Suite 123
Kirtland Air Force Base, NM 87117

Dear Mr. DeWitt:

Recently, Mr. John Gould of my staff, and Ms. Sue Collins of Sandia National Laboratories (SNL/NM), met with you to discuss Environmental Restoration (ER) Site 7, Gas Cylinder Disposal Pit. As discussed in the meeting, Site 7 was misnamed on our RCRA permit and actually contains debris from the demolition of the old Veterans Administration Hospital. The Gas Cylinder Disposal Pit was located approximately two miles south of Site 7, adjacent to the Chemical Waste Landfill, and was remediated by DOE/SNL in 1995.

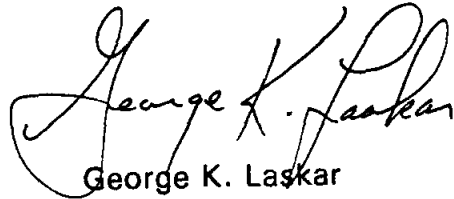
Although early in our program of site investigations Site 7 was considered to be a DoD site more appropriately investigated under KAFB's Installation Restoration Program (IRP), SNL did perform a radiological survey of the site. Since the radiological survey did not detect any contamination, it was felt that the most efficient course of action was for DOE/SNL to propose the site for No Further Action (NFA) rather than to conduct a permit modification to transfer an uncontaminated site to KAFB's RCRA permit. However, the NFA proposal was not approved by NMED and additional characterization was required. As a result, we feel that it is appropriate for KAFB to take responsibility for the further investigation of the site. We would like to meet with you to discuss the transfer this site.

Enclosed is documentation on Site 7, including the NFA proposal and the October 1999 NMED Notice of Deficiency.

C. DeWitt

(2)

If you have any questions, or to set up a meeting, please contact John Gould at (505) 845-6089.



George K. Laskar
Assistant Area Manager
for Laboratory Operations

Enclosure

cc w/o enclosure:

D. Bourne, AL, ERD

W. Cox, SNL, MS 1089

D. Miller, SNL, MS 1088

S. Collins, SNL, MS 1088

W. Moats, NMED, MS 1089

H. Davidson, KAFB/EM