AOWA SNL 1334

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

JUL 06 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Benito Garcia, Bureau Chief
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
2044 Galisteo Street
P.O. Box 26110
Santa Fe, NM 87505-2100

Dear Mr. Garcia:

Enclosed is one of two NMED copies of the Department of Energy/Sandia National Laboratories (DOE/SNL) response to your March 31, 1998, Notice of Deficiency regarding the RCRA Facility Investigation Work Plan for Operable Unit 1334, Central Coyote Test Area.

If you have any questions, please contact John Gould at (505) 845-6089, or Mark Jackson at (505) 845-6288.

Sincerely,

George K. Sarkar

Michael J. Zamorski
Area Manager

Enclosure

SNL 1107

cc w/enclosure:
D. Bourne, AL, ERD
J. Parker, NMED-OB
R. Kennett, NMED-OB
S. Hoines, NMED-HRMB (via certified mail)
D. Neleigh, EPA, Region 6 (2 copies via certified mail)

cc w/o enclosure:
B. Oms, KAO-AIP
W. Cox, SNL, MS 1147
D. Fate, SNL, MS 1148
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Certification Statement for Approval and Final Release of Documents

Document title and author: Notice of Deficiency (NOD) Comment Responses for Operable Unit 1334 Work Plan, Central Coyote Test Area

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather, evaluate, and prepare the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Joan B Woodard — 7/2/98
Joan B. Woodard — Date
Vice President
Energy, Information, & Infrastructure
Division 6000
Sandia National Laboratories
Albuquerque, New Mexico
Co-Operator

and

[signature] — 7/2/98
Michael J. Zamorski — Date
Area Manager
Kirtland Area Office
U.S. Department of Energy
Albuquerque Operations Office
Owner and Co-Operator

Sandia National Laboratories
Albuquerque, New Mexico
July 1998

Environmental Restoration Project
Response to NMED Technical Comments on the RCRA Facility Investigation Work Plan for Operable Unit 1334, Central Coyote Test Area Dated March 31, 1998

INTRODUCTION

This document responds to a Notice of Deficiency (NOD) received in a letter from the State of New Mexico Environment Department Hazardous and Radioactive Materials Bureau (NMED-HRMB) to the U. S. Department of Energy (Zamorski, March 31, 1998) regarding the submittal of the Request for Supplemental Information (RSI) on the *Sandia National Laboratories RCRA Facility Investigation Work Plan for Operable Unit 1334, Central Coyote Test Area.*

This response document first addresses the general NMED-HRMB comments and then the specific site technical comments in the same numerical order as the NOD. The NMED-HRMB comments are repeated in **bold** by comment number. The DOE/SNL response is written in normal font style on a separate line under "Response". Responses to general comments begin on Page 3 and responses to site-specific technical comments begin on page 6. Additional information is included at the end of this document.

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RESPONSES TO NMED TECHNICAL COMMENTS ON THE RCRA FACILITY INVESTIGATION WORK PLAN FOR OU 1334, CENTRAL COYOTE TEST AREA SANDIA NATIONAL LABORATORIES ALBUQUERQUE, NEW MEXICO JULY 1998

GENERAL DEFICIENCIES/COMMENTS

1. ***Introduction*** **– the Request for Supplemental Information (RSI) (dated August 26, 1997) for the OU 1334 RCRA Facility Investigation (RFI) Work Plan was issued by the New Mexico Environment Depart (NMED) Hazardous and Radioactive Materials Bureau, not the NMED Department of Energy (DOE) Oversight Bureau (OB). HRMB is the regulatory authority.**

   Response: Department of Energy (DOE) and Sandia National Laboratories (SNL) acknowledge the comment.

2. **Response 2 – The scaled maps should be submitted to the HRMB. DOE/SNL may submit the individual site maps with No Further Action (NFA) proposals or with an RFI report.**

   Response: DOE/SNL acknowledges the comment. NFA proposals will include correctly scaled maps.

3. **Response 3 – DOE/SNL must specify which sites will be, and which sites will not be sampled for *background* gross alpha, gross beta, and gamma spectrum. Sufficient samples of these radiological parameters must be collected to allow a reasonably accurate range of background levels to be established for "order of magnitude screening."**

   Does this answer the question?

   Response: DOE/SNL has conducted sampling for gross alpha and gross beta analyses at ER Sites 57A, 61A, and 61C following proposed guidelines in the Specific Technical Comments presented in the August 26, 1997 NMED-HRMB Request for Supplemental Information – Central Coyote Test Area (OU-1334) RFI Work Plan. Background gross alpha and gross beta and gamma spectrum analyses at ER Sites 9 and 68 will also follow the Specific Technical Comments guidelines.

   No additional radiological sampling is planned for ER Sites 11 or 57B. The No Further Action proposals for these sites were submitted in September 1997. No indication of radiological contamination was observed using a beta-gamma instrument to field-screen all samples that were collected, or in any samples that were analyzed in fixed-base laboratories by gamma spectroscopy and for isotopic uranium, and isotopic thorium.

4. ***Response 4*** **– DOE/SNL are encouraged to seek recommendations from the DOE OB; however, the DOE OB is not the regulatory authority. HRMB may or may not accept any given agreement between the DOE OB and DOE/SNL.**

Response: DOE/SNL acknowledges the comment.

5. ***Response 5*** **– HRMB will decide on a case-by-case basis whether ground water has been threatened by site testing and/or disposal activities, and whether ground water must be investigated.**

Response: DOE/SNL acknowledges the comment.

SPECIFIC DEFICIENCIES/COMMENTS

ER Site 9, Burial Site/Open Dump

1. ***Response 1* – HRMB will not support NFA petitions for sites that have not been fully characterized.**

   Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

2. ***Response 3* – Background concentrations can only be approved by HRMB.**

   Response: DOE/SNL acknowledges the comment. We are using the background concentrations approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

3. ***Response 6* – The waste types found in Mound 2 must be documented by DOE/SNL. SNL must also document the disposition of the debris removed from Mound 2.**

   Response: "Mound 2" is a pile of debris located along the edge of the arroyo at the southern end of Mound 3. Mound 2 consisted largely of tangled barbed wire, a bullet riddled, but otherwise empty 55-gallon drum, rusty cans (paint and aerosol paint), a few scraps of fiber board, and a few pieces of scrap iron. This debris was cleaned of loose soil and was field-screened for volatiles and radioactivity. No indications of chemical or radiological contamination were detected. No radiological contamination was detected during a subsequent screening and swipe sampling by SNL Radiation Protection personnel. The materials were deemed unsuitable for recycling following an inspection by SNL/NM Waste Management and Reapplication personnel, and the debris was disposed in the Kirtland Air Force Base landfill.

4. ***Response 9* – Sediment samples from the arroyo channel must also be analyzed for gamma spectrum.**

   Response: DOE/SNL acknowledges the comment and will also analyze arroyo channel sediment samples for gamma spectrum.

ER Site 11, Explosives Burial Mounds

1. ***Response 1*** **– See Specific Comment 1, ER Site 9.**

   Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

2. ***Response 2*** **– See Specific Comment 2, ER Site 9.**

   Response: DOE/SNL acknowledges the comment. The NFA for ER Site 11 was submitted in September 1997 and used background concentration values that were subsequently approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

3. ***Response 3*** **– Samples collected in the bottoms of the depressions must be analyzed for VOC's, gross alpha, gross beta, and gamma spectrum.**

   Response: Two phases of RFI sampling were performed at ER Site 11. On May 20, 1996, RFI sampling was conducted around the mounds and in some of the depressions adjacent to the mounds. In August and September 1996, following a VCM to remove the mounds, additional RFI samples were collected under the former mound locations. In both cases, additional samples were collected and analyses were performed to support requests by Mr. William Moats and Mr. William Stone, both then with NMED-OB. Fourteen additional gamma spectroscopy analyses were conducted on samples in and around the mounds. The number of samples planned for the former mound locations were increased from 10 to 17 and samples were also analyzed for gamma spectroscopy, VOCs, and isotopic uranium. A split sample was also collected under the former Mound 5 location for separate analysis by NMED-OB personnel.

   There was no evidence of any kind of release at ER Site 11 and an NFA was submitted to NMED-HRMB in September 1997. The site has been delisted as a Radioactive Materials Management Area by DOE/SNL.

ER Site 57A, Workman Site: Firing Area

1. ***Response 3* – Information showing that the point source was removed, and the area sources are naturally occurring geologic materials must be presented in the NFA proposal (or RFI report) for the site.**

   Response: The information showing that the point source was removed, and the area sources are naturally occurring geologic materials will be included in the NFA proposal when it is submitted in September 1998.

2. ***Response 4* – See Specific Comment 2, ER Site 9.**

   Response: DOE/SNL acknowledges the comment. We are using the background concentrations approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

3. ***Response 7* – Soil samples must be collected from beneath the floor drain.**

   Response: DOE/SNL acknowledges the comment. In February 1998, the underground bunker was sampled. When the floor drain was removed, it was found to discharge directly into a shallow "pocket" of gravel and soil beneath the bunker floor. These materials were apparently placed to aid any drainage into the subsurface. There was no discharge line associated with the drain. One soil sample (and duplicate) was collected from the material 0-0.5 ft below the base of the floor. Both were analyzed for RCRA metals plus beryllium, Target Analyte List (TAL) metals, semivolatile organic compounds (SVOCs), high explosives (HE), gross alpha, gross beta, and gamma spectrum. These results will be presented in the NFA proposal when it is submitted in September 1998.

4. ***Response 9* – The response included the sentence "VOC samples were collected of each mound's soil and the *oil* (emphasis added) beneath each mound".**

   HRMB assumes that the word "oil" is a typo; if not, DOE/SNL must characterize the oil-contaminated soil at each mound location.

   Response: The word "oil" is a typo and should have read "soil."

5. ***Response 10*** **-- The pipe should be excavated to prove that it is nothing more than an abandoned electrical conduit.**

Response: The pipe was removed by breaking it off at ground level during a general site clean-up following the debris mound sampling in January 1997. The thin pipe wall thickness, light metal construction, and joint connector present on the upper, exposed end were typical, and characteristic of electrical conduit piping.

ER Site 57B, Workman Site: Target Area

1. ***Response 1*** **-- See Specific Comment 1, ER Site 9.**

Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

2. ***Response 2*** **-- Information showing that the four area sources are naturally occurring geologic materials must be presented in the NFA proposal (or RFI report) for the site.**

Response: The information regarding the area sources was presented in the *Sandia Surface Radiological Surveys Report* submitted in July 1994. This report explains that these four area sources are associated with the rubble/construction debris mound along the west edge of the site. This mound contains a high percentage of granitic-type rocks along with asphalt and concrete rubble. The slightly elevated readings, approximately 140-230 counts-per-second (cps) as opposed to the area background of about 110 cps, are associated with portions of the mound that are predominantly granitic rubble and are related to this lithology. There was no evidence of radiological contamination in the soil samples collected during RFI sampling. The NFA proposal for this site was submitted to NMED in September 1997.

3. ***Response 3*** **-- See Specific Comment 2, ER Site 9.**

Response: DOE/SNL acknowledges the comment. We are using the background concentrations approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

4. *Response 4* – **Soil samples must be collected from beneath the bottom of the pits and analyzed for VOC's and SVOC's.**

Response: In June and December 1996, DOE/SNL conducted the RFI sampling at ER Site 57B as described in the Work Plan and modified by November 24, 1995 Draft EPA NOD comments on the Work Plan. One sample from the bottom of each pit was analyzed for RCRA metals plus beryllium and high explosives. There was no evidence of a release. The NFA proposal was submitted to HRMB in September 1997.

5. *Response 5* – **See Specific Deficiency 4 above.**

Response: Discreet samples were collected from 0-6 inches in depth from the bottom of each pit. These samples were analyzed for RCRA metals plus beryllium and high explosives. There was no evidence of a release. The NFA proposal was submitted to HRMB in September 1997.

6. *Response 6* – **The nonhazardous solid waste should be removed and disposed of in a RCRA Subtitle D landfill. If this is not done, HRMB will ask the NMED Solid Waste Bureau to conduct a compliance inspection of the debris mound. If the debris mound is found to be in violation of the New Mexico Solid Waste Management Regulations, then HRMB will not support a NFA proposal for ER Site 57B.**

Response: The "solid waste" in the mound consists of clean construction and demolition debris, such as asphalt, concrete pieces, and granitic rubble. Under 20 NMAC 9.1, Section 105.BX, any facility or person accepting or stockpiling clean fill material (e.g., broken concrete, brick, rock, stone, glass, reclaimed asphalt pavement, etc.) is not a solid waste facility. In addition, this construction and demolition debris is exempt from the solid waste management regulations under 20 NMAC 9.1, Section 108.C.

ER Site 61A, Schoolhouse Mesa Test Site: Blast Area

1. *Response 1* – **See Specific Comment 1, ER Site 9.**

Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

2. ***Response 2*** **– Information concerning the radiological point and area sources, and remediation, must be presented in the NFA proposal (or RFI report) for the site.**

Response: DOE/SNL acknowledges the comment. Information concerning the radiological point and area sources will be included in the NFA proposal when it is submitted in September 1998.

3. ***Response 3*** **– See Specific Comment 2, ER Site 9.**

Response: DOE/SNL acknowledges the comment. We are using the background concentrations approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

4. ***Response 9*** **– Surface soil in the area northeast of the concrete blocks must be sampled and analyzed for HE.**

Response: (DOE/SNL assumes that this is actually for Response 6, not 9 in the RSI.) The areas adjacent to, and northeast of, the concrete blocks (in the cleared area) have been sampled for gamma spectroscopy, RCRA metals plus beryllium, gross alpha, gross beta, and high explosives. The results will be presented in the NFA proposal when it is submitted in September 1998.

ER Site 61C, Schoolhouse Mesa Test Site: Schoolhouse Building

1. ***Response 3*** **– See Specific Comment 1, ER Site 9.**

Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

2. ***Response 4*** **– The "J-coded" concentrations for V and Cd, and the concentration for nitrate (Table 5-11) exceed approved background levels for these constituents in ground water. Additional data are needed for HRMB review (see Specific Deficiency 3 below).**

Response: The available groundwater analytical data for the Schoolhouse Well has been sent under separate cover to Mr. William P. Moats of NMED-HRMB. A copy of the transmittal letter is included as Attachment 1 of this document. Monitor wells at this site will be discussed with NMED as detailed in Specific Deficiency 3 below.

3. *Response 6* – **DOE/SNL must follow the sampling protocol recently established by HRMB for sampling septic systems (see letter from Stu Dinwiddie, NMED, to Mike Zamorski, DOE, dated January 29, 1998).**

DOE/SNL must compile all available ground-water quality data for the Schoolhouse Well and submit it to HRMB.

Monitor wells may be needed at the Schoolhouse site to investigate potential ground-water contamination.

Response: No leach field or septic system at the Schoolhouse building was found during the recent sampling at ER Site 61C. The sink drain empties directly into the ground about 1.5 feet below grade at the edge of the building foundation and is anchored to a grounding rod. One soil sample was collected at the drain's exit point. Three more trenches excavated near the drainpipe's exit from the building failed to locate any evidence of a drain line directed towards the leach field area. No leach lines or buried piping of any kind were found in a trench excavated across this area thought to be a leach field. This disturbed area was apparently used for dumping soil from grading activities around the Schoolhouse building. Three soil samples were collected along the length of the trench at the depth of the fill material and native material, about 3.5 to 4 feet below grade. All soil samples collected for this phase of the investigation were analyzed for RCRA metals plus beryllium, SVOCs, HE, VOCs, gross alpha, gross beta, and gamma spectrum. Analytical results will be presented when the NFA proposal is submitted in Fiscal Year (FY) 1999.

The available groundwater analytical data for the Schoolhouse Well has been sent under separate cover to Mr. William P. Moats of NMED-HRMB. A copy of the transmittal letter is included as Attachment 1 of this document.

No new monitor wells are planned at this time, however the RFI sampling data is being collected and the results may have a bearing on the need for a groundwater well. All data and information collected will be evaluated and discussed with NMED before an action of this kind is initiated.

4. **Response 5 (2nd response 5) -- See Specific Comment 1, ER Site 9 and General Comment 5.**

Response: DOE/SNL acknowledges this comment.

5. **Response 6 (2nd response 6) -- See Specific Comment 1, ER Site 9.**

Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

6. **Response 8 (2nd response 8) -- See Specific Comment 2, ER Site 9.**

Response: DOE/SNL acknowledges the comment. We are using the background concentrations approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

ER Site 68, Old Burn Site

1. ***Response 4*** **-- See Specific Comment 1, ER Site 9.**

Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

2. ***Response 5*** **-- Information showing that the point sources have been remediated must be presented in the NFA proposal for the site.**

Response: Point sources were removed and properly disposed of as part of the SNL/NM Surface Radiological Surveys and remediation between October 1993 and November 1996. Three area anomalies remaining at ER Site 68 were remediated in May-June 1998. Remediation details and results will be presented in the NFA proposal for this site when it is submitted.

3. ***Response 6*** **-- See Specific Comment 2, ER Site 9.**

Response: DOE/SNL acknowledges the comment. We are using the background concentrations approved by NMED-HRMB in their *Request for Supplemental Information: Background Concentrations Report, SNL/KAFB* to Michael J. Zamorski, DOE/KAO, September 24, 1997.

4. *Response 8* – **The soil samples must be collected and analyzed for VOC's, SVOC's, metals, gross alpha, gross beta, and gamma spectrum.**

   Response: DOE/SNL acknowledges the comment. Additional sampling and analysis as specified will be undertaken in FY 1999 and the results will be provided in the NFA proposal when it is submitted.

5. *Response 11* – **See Specific Comment 1, ER Site 9.**

   Response: DOE/SNL submits NFA proposals for sites which we believe have been fully characterized to determine if there is potential impact to human health or the environment.

6. *Response 12* – **See Specific Deficiency 4 above.**

   Response: DOE/SNL acknowledges the comment. Additional sampling and analysis will be undertaken and the results will be provided in the NFA proposal when it is submitted.

7. *Response 14* – **SNL must investigate the debris mound. This investigation does not have to be done as part of ER Site 68; however, DOE/SNL must submit a schedule showing when the investigation will begin and the anticipated completion date.**

   Response: DOE/SNL submitted a request for additional funding in June 1998 to investigate this site. The schedule is contingent upon this funding and cannot be finalized and provided to HRMB until funding is secured. The investigation will be done separately from Site 68.

Attachment 1

Transmittal Letter to NMED-HRMB for Schoolhouse Well Groundwater Analytical Data

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

JUN 25 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. William P. Moats
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
4131 Montgomery Blvd. NE
Albuquerque, NM 87109

Dear Mr. Moats:

Enclosed is a copy of the groundwater analytical data for the Schoolhouse monitor well as requested in the New Mexico Environment Department Hazardous and Radioactive Materials Department (NMED-HRMB) Notice of Deficiency regarding the Sandia National Laboratories/New Mexico (SNL/NM) Draft RCRA Facility Investigation Work Plan for Operable Unit 1334, Central Coyote Test Area.

Due to the volume of data requested, we are providing your office with one copy of the data, rather than provide copies to all those on general distribution for our response to the Notice of Deficiency on the work plan.

Please contact me at (505) 845-6089 if you have any questions, or if any additional copies of the provided data are needed.

Sincerely,

John Gould
Laboratory Operations

Enclosures

cc w/o enclosures:
D. Bourne, AL, ERD
B. Oms, DOE/KAO
W. Cox, SNL, MS 1147
D. Fate, SNL, MS 1132
D. Miller, SNL, MS 1148
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