Public Comments Received by NMED
May 16, 2023

Class 2 Permit Modification Request to Add a New Permitted Unit to Technical Area 60

Elizabeth Yeates Comments

Public Notice

Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID No. NM0890010515

Activity: The U.S. Department of Energy (DOE) and Triad National Security, LLC (Triad), have submitted a Class 2 permit modification request to add a new container storage unit at Technical Area 60.

Facility: The Permit authorizes the U.S. Department of Energy (DOE); Triad National Security, LLC (Triad); and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) [the Permittees] to manage, store, and treat hazardous waste at LANL. Under authority of the New Mexico Hazardous Waste Act (Section 74-4-1 et seq., NMSA 1978, as amended, 1992) and the New Mexico Hazardous Waste Management Regulations (20.4.1 NMAC), the New Mexico Environment Department (NMED) can approve or deny hazardous waste permits and closure plans, permit modifications, and amendments.

Availability: The proposed permit modification is available for public review weekdays between 8:00 am and 5:00 pm at

NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313

Copies are also available at the LANL Hardcopy Public Reading Room by appointment (call 505-709-7466) weekdays from 9:00 am to 4:00 pm at

Northern New Mexico Citizens' Advisory Board Office
94 Cities of Gold Road in Pojoaque, New Mexico
https://environment.lanl.gov/public-reading-room/

Electronic copies of the permit modification request can also be found in the **LANL Electronic Public Reading Room (EPRR)** at http://eprr.lanl.gov

The LANL Hazardous Waste Facility Permit can be found on the NMED LANL Permit web page at: https://www.env.nm.gov/hazardous-waste/lanl-permit/

Meeting: A public meeting about the permit modification will be held from 5:00 pm to 7:00pm on April 19, 2023 via WebEx.

From Link: https://lanl-us.webex.com/lanl-us/j.php?MTID=md3aa442009bba2308759287a2b978e91

Using meeting number: 2456 245 3427 (access code) Meeting password: PublicMeeting

By phone: +1-415-655-0002 (US Toll) Meeting number: 2456 245 3427

Comments:

Neelam Dhawan
NMED-Hazardous Waste Bureau,
2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico 87505-6313
Telephone (505) 476-6000 or e-mail: neelam.dhawan@env.nm.gov

The Permittee's compliance history during the life of the permit being modified is available from the NMED contact person. The public comment period for this permit modification will run from March 16, 2023 through May 15, 2023. Any person who wishes to comment on this action should submit written or e-mail comments with the commenter's name and address to the address above. Only written comments received on or before May 15, 2023, will be considered.

Facility Contact: If you have questions, please contact Los Alamos National Laboratory.

Steven Horak
Environmental Communication & Public Involvement
P.O. Box 1663, MS S020
Los Alamos, NM 87545
Phone/email: 505-551-4514 / envoutreach@lanl.gov

March 23, 2023

Neelam Dhawan

NMED – Hazardous Waste Bureau

2905 Rodeo Park Drive East

Building 1

Santa Fe, New Mexico, 87505-6313

Dear Neelam:

I noticed your public notice in the Taos News. It appears a debate occurred on the getting rid of trash. It seems people question the safety of hazardous waste disposal near their home.

Actually, I think no one really cares with such extensive pollution abounding. A car dealership illegally operates in a residential area across the street from my house. At times, the illegal business produces large amounts of chemicals released into the air burning my nose and throat. No one cares.

Since the industrial revolution began in the early 1700's with the introduction of the train and factories, pollution entered into our world as an everyday occurrence.

Good luck on removing hazardous products safely.

Sincerely,

Elizabeth Yeates

Elizabeth Yeates

3100 Barak

Bryan, Texas 77802

Joni Arends, Concerned Citizens for Nulcear Safety
Comments

CONCERNED CITIZENS FOR NUCLEAR SAFETY
P.O. Box 31147
Santa Fe, NM 87594-1147
(505) 986-1973
www.nuclearactive.org

May 15, 2023

By email to: neelam.dhawan@env.nm.gov

Ms. Neelam Dhawan
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Re: Public Comments about Proposed New Container Storage Unit at Technical Area 60-0017
Need for a Class 3 PMR Process Due to Outstanding Seismic Issues

Dear Ms. Dhawan:

Concerned Citizens for Nuclear Safety (CCNS) provides the following comments about the proposed new container storage unit (CSU) at Technical Area 60-0017 at Los Alamos National Laboratory (LANL). CCNS has determined the proposed permit modification is not a Class 2. It is a complex proposed modification requiring the New Mexico Environment Department (NMED) to determine it requires the more extensive procedures of a Class 3 permit modification request (PMR). 40 CFR § 270.42(b)(6)(i)(C). Key to our request is the fact that the Permittees have not provided accurate seismic analysis as required by the Resource Conservation and Recovery Act (RCRA). 40 CFR § 270.14(b)(11). Los Alamos County is specifically named as a location requiring seismic analyses. Appendix VI of Part 264.

The conclusion to the PMR's Attachment 2 *Seismic Report for the TA-60 Facility* uses inconclusive statements to hide the seismic danger within the Pajarito Fault System and specifically in the young and growing Rendija Canyon Fault and the Guaje Mountain Fault that may terminate in the area of the CSU. We cite inconclusive statements found in the conclusion to the *Seismic Report*:

¶ 1: The fault *appears to terminate* southwest of TA-60-0017 near Twomile Canyon;

¶ 2: Individual fault traces *indicate that TA-60-0017 is likely near* the southern terminus of the Rendija Canyon fault zone;

¶ 3: The faults near TA-60-0017 *are likely not to be individually seismogenic* and thus the seismic hazard to the location address in this report is low; [CCNS asks: What happens if it isn't?]

¶ 4: In conclusion, while evidence for Holocene faulting *is difficult to determine at the TA-60-0017 facility* due to infrastructure development and significant surficial disturbance…. [This statement is not true.]

CCNS respectfully requests that the NMED Hazardous Waste Bureau carefully examine the lack of infrastructure development and absence of significant surficial disturbance at TA-60-0017. *See* Figure 3-2 (water table contours and sampling locations); Figure 3-5 (surrounding area); Figure 3-7 (SWMUs in broader area); Figure 3-8 (floodplains); Figure 3-9 (security and access); and Figure 3-10 (surrounding buildings, roads and traffic signs).

TA-60-0017 is a relatively barren area. Other LANL scientists have found evidence of Holocene faulting in the area.

For example, former LANL scientists, Gardner and Lewis, were able to map intense fractures in the canyons north and south of TA-60-0017. Their work was cited in the 2011 draft *Supplemental Environmental Impact Statement for the Nuclear Facility Portion of the Chemistry and Metallurgy Research Building Replacement Project at LANL*, p. 3-25:

> New paleoseismic data argue for three Holocene (past 11,000 years) surface-rupturing earthquakes, including an earthquake on the Pajarito Fault, approximately 1,400 years ago; an earthquake on the Pajarito Fault approximately 5,000 to 6,000 years ago, which is consistent with an event during the same general time frame on the Guaje Mountain Fault; and a third earthquake on both the Pajarito and the Rendija Canyon Faults, approximately 9,000 years ago. This paleoseismic event chronology demonstrates that the Pajarito Fault often ruptures alone, but sometimes ruptures either with the Rendija Canyon Fault or Guaje Mountain Fault. When this occurs, the resultant seismic moment and, therefore, the earthquake magnitude are larger than when the main Pajarito Fault ruptures alone. Given the evidence for youthful movement on the Pajarito Fault system, future ruptures should be expected.

In 2011, DOE stated that sometimes the Pajarito Fault ruptures with either the Guaje Mountain Fault or the Rendija Canyon Fault resulting in an earthquake magnitude **larger than** when the Pajarito Fault ruptures alone. The PMR Seismic Report does not cite this important evidence of the growing seismic danger in Los Alamos County.

Further, CCNS incorporates the attached four maps into these comments to demonstrate the complexity of the PMR and the need for NMED to deny it or determine the PMR must follow the procedures in 40 CFR § 270.42(c) for a Class 3 modification.

The maps are available at: http://nuclearactive.org/wp-content/uploads/2014/06/LANL-PAJARITO-FAULT-SYSTEM-FIGURES.pdf They are:

Figure 1. Map of the Pajarito Fault System and Embudo Fault System – Southwestern Section in Northern New Mexico. Source: Figure 5-4 in LANL 2007 PSHA Report.

Figure 2. Mapped Faults in the Los Alamos National Laboratory Area. *Please Note.* The detailed mapping to determine the southward extent of the GM Fault (Guaje Mountain Fault) toward and possibly close to the location of the proposed CMRR Nuclear Weapons Facility has not been performed. *Neither has it been done for this proposed PMR for TA-60-0017.*

Figure 3. Map in 2004 LANL Report by Wohletz showing proposed location of Rendija Canyon Fault along the western boundary of LANL TA-55 and Guaje Mountain Fault 2500 feet east of the eastern boundary of TA-55. Source: Figure 14 in Wohletz, 2004 (LA-UR-04-8337).

Figure 4. West to East Cross-Section D-E' on page 263 in Lewis et al., 2009.

Due to the lack of adequate seismic analysis for the proposed CSU as required by RCRA, CCNS urges the NMED to deny the Class 2 permit modification request and require a Class 3 public process.

Thank you for your careful consideration of our comments. Should you have any questions or comments, please contact me.

Sincerely,

Joni Arends
Executive Director

Attachment: Four maps of the LANL Pajarito Fault System presented by Robert H. Gilkeson, an independent geologist.

Figure 1. Map of the Pajarito Fault System and Embudo Fault System – Southwestern Section in Northern New Mexico. **Source:** Figure 5-4 in LANL 2007 PSHA Report.

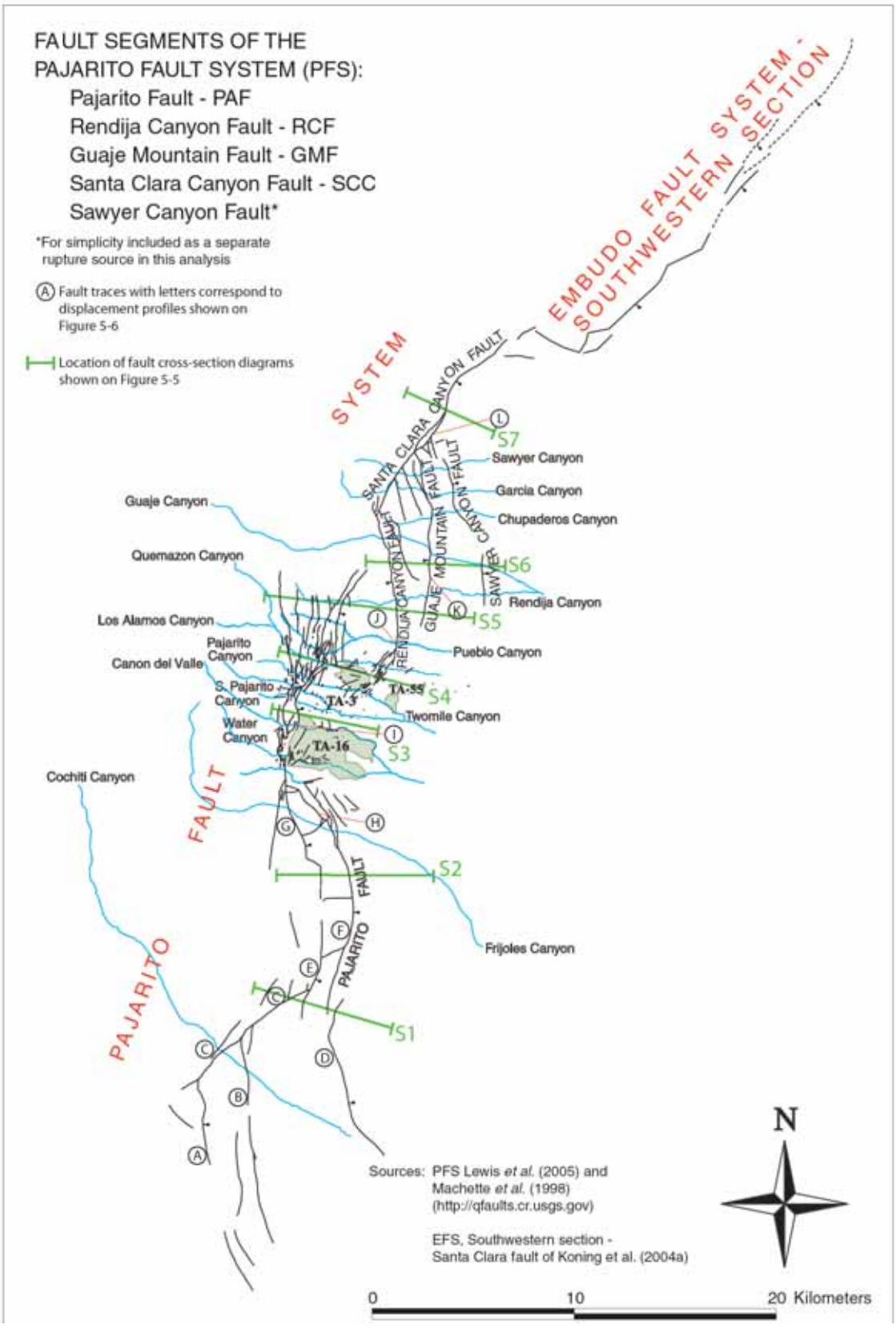
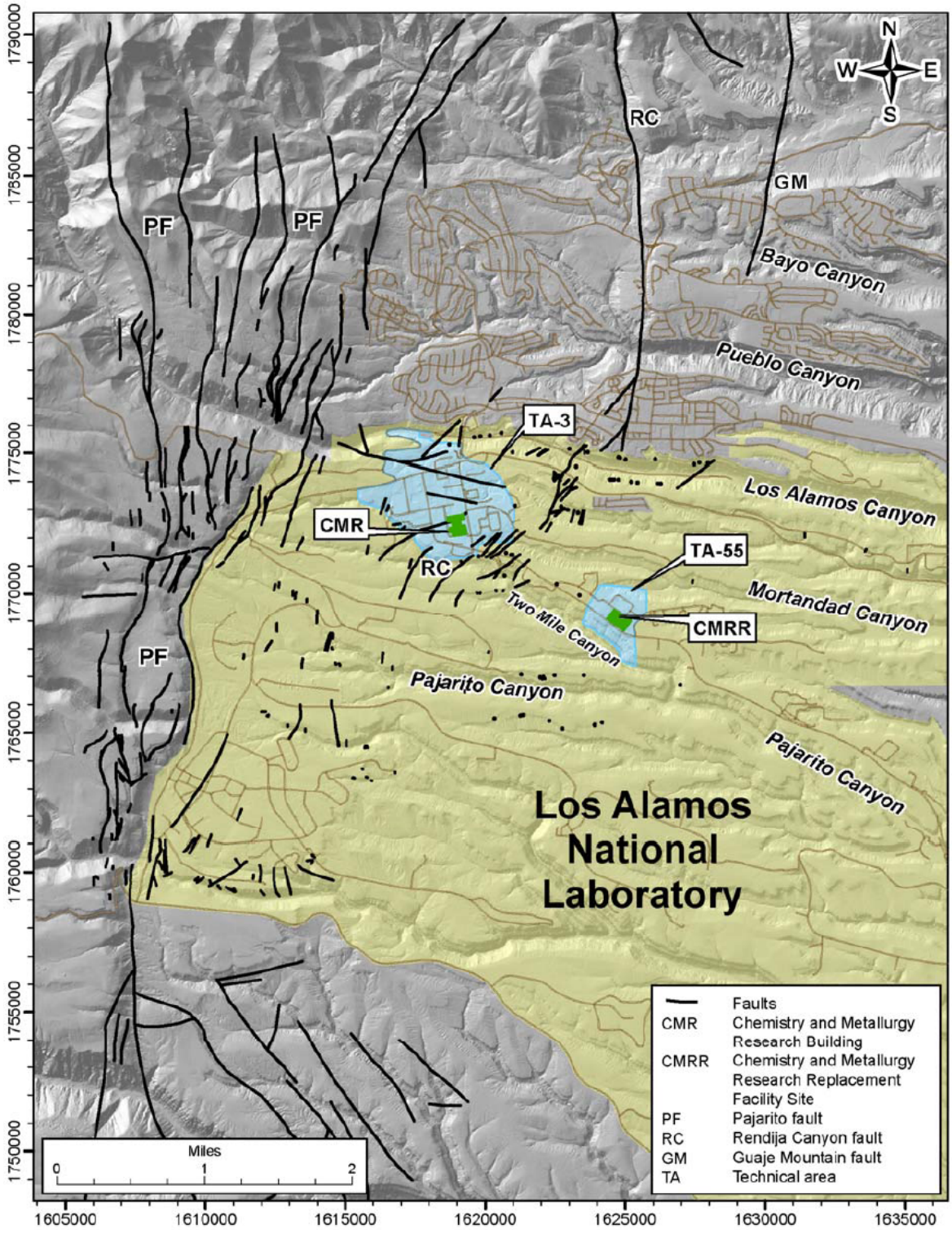


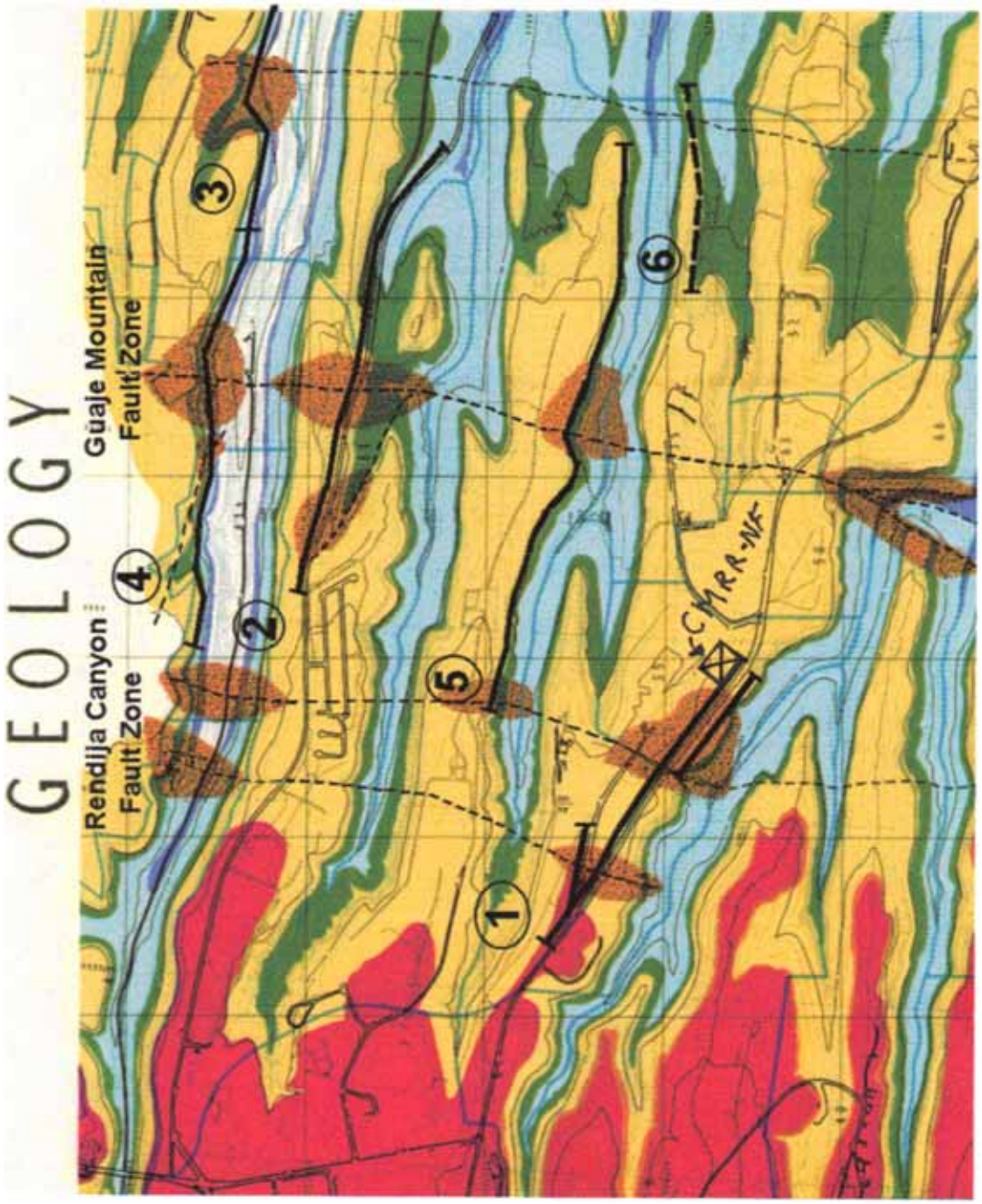
Figure 2. Mapped Faults in the Los Alamos National Laboratory Area.

Please Note. The detailed mapping to determine the southward extent of the GM Fault (Guaje Mountain Fault) toward and possibly close to the location of the proposed CMRR Nuclear Weapons Facility has not been performed.



Source: Figure 3-5 in the DOE 2011 SEIS

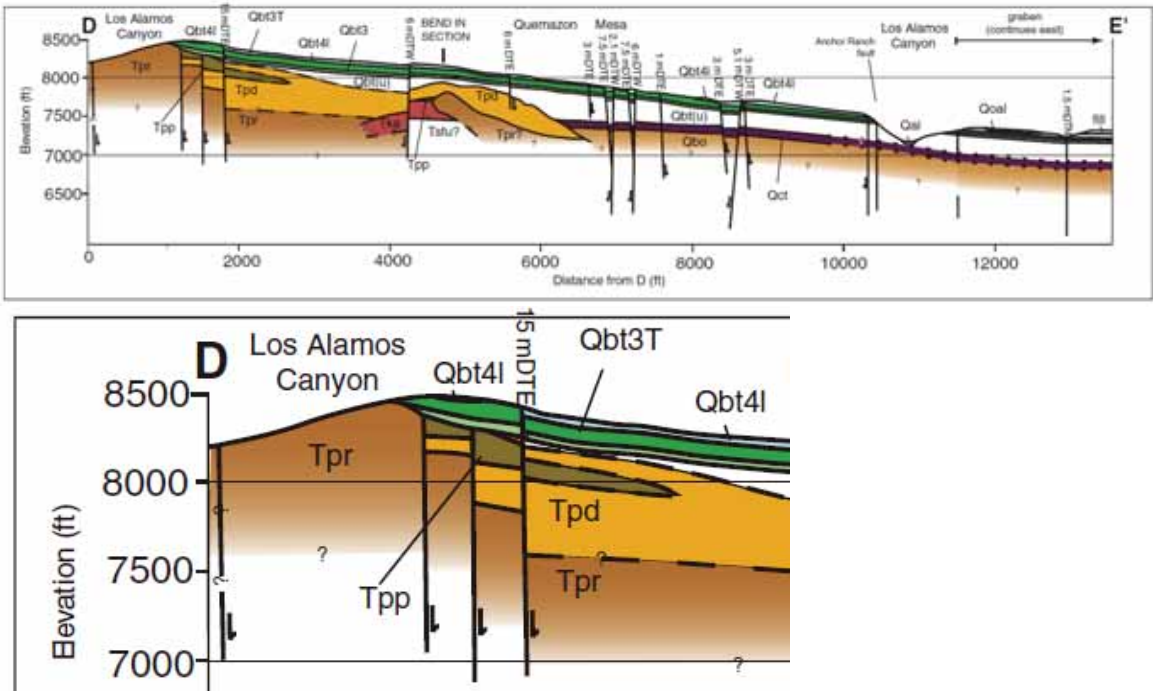
Figure 3. Map in 2004 LANL Report by Wohletz showing proposed location of Rendija Canyon Fault along the western boundary of LANL TA-55 and Guaje Mountain Fault 2500 feet east of the eastern boundary of TA-55.
Source: Figure 14 in Wohletz, 2004 (LA-UR-04-8337)



Scale 0----------1950 feet

- **Black X inside rectangle is location of proposed CMRR-NF**
- **Dashed black lines show trend of inferred faults - - - - - - - - -**
- **Brown patches along dashed black lines are zones of intense fractures**
- **Circled numbers 1 to 6 have no relation to intense fracture zones.**

Figure 4. West to East Cross-Section D-E' on page 263 in Lewis et al., 2009.



Note. The vertical arrows show the side of the discrete faults where displacement is downward. 15mDTE means the vertical displacement is 15 meters (49 feet) downward to the east.

An additional important factor is that the youthful PFS is currently at a growth stage where the interaction between the primary Pajarito Fault (PF or PAF) and the subsidiary Rendija Canyon Fault (RCF) and Guaje Mountain Fault (GMF) often results in multiple ground-breaking ruptures from two of the three faults (Lewis et al., 2009). The powerful multiple surface-rupturing earthquakes are described on page 3-25 in the DOE 2011 draft SEIS as follows:

> New paleoseismic data argue for three Holocene (past 11,000 years) surface-rupturing earthquakes, including an earthquake on the Pajarito Fault, approximately 1,400 years ago; an earthquake on the Pajarito Fault approximately 5,000 to 6,000 years ago, which is consistent with an event during the same general time frame on the Guaje Mountain Fault; and a third earthquake on both the Pajarito and the Rendija Canyon Faults, approximately 9,000 years ago. This paleoseismic event chronology demonstrates that the Pajarito Fault often ruptures alone, but sometimes ruptures either with the Rendija Canyon Fault or Guaje Mountain Fault. When this occurs, the resultant seismic moment and, therefore, the earthquake magnitude are larger than when the main Pajarito Fault ruptures alone. Given the evidence for youthful movement on the Pajarito Fault system, future ruptures should be expected.