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State of New Mexico
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September 16, 1997

SEP 1997
RECEIVED

Mat Johansen, DOE AIP POC
U. S. Department of Energy
Los Alamos Area Office, MS A316
528 35th Street
Los Alamos, New Mexico 87544

RE: Review of Environmental Assessment for Lease of Land for the Development of a Research Park at Los Alamos National Laboratories, Predecisional Draft, July 23, 1997

Dear Mr. Johansen:

The DOE Oversight Bureau (DOE OB) has reviewed the subject document. The attached comments are provided for the purpose of communicating the results of the review. They are not provided or intended for the purpose of representing the regulatory position of the New Mexico Environment Department.

We are mainly concerned with potential impacts resulting from the development of land that is located within or near potential release sites (PRSs). Below is a summary of our main concerns:

- We are concerned that the areas at or near the PRSs may be developed before NMED approves no further action for the PRSs. In addition, new utilities may be located within or near these PRSs. Development of these sites could make it more difficult to investigate or remediate them.

- We are concerned that the EA dismisses the potential for adverse effects at most of the PRSs because DOE believes that NMED will approve no further action at these sites. NMED may recommend additional investigation at these sites if there is insufficient information available to approve no further action. In addition, NMED may require that the sites be remediated if they pose an ecological risk.

- We are concerned that there may be a potential for adverse effects if gas or steam lines rupture in the zone of contamination near PRSs 3-038(a) and (b).

- We are concerned that the EA does not address the potential for generating hazardous, mixed, or radioactive waste, if the areas within or near the PRSs are developed.

- We are concerned that the EA does not address installation and maintenance of best management practices at the PRSs to prevent migration of potential contaminants.

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We appreciate the efforts of the DOE and the opportunity to participate in the review of this predecisional draft document. We look forward to reviewing the revised document.

If there are any questions, please contact Julie Wanslow, DOE Oversight Bureau FU-1 Manager, at 505-827-1536.

Sincerely,

Stephen Yanicak

Steve Yanicak, LANL POC
Department of Energy Oversight Bureau

SY:jw

Attachment

cc w/o attachment:
J. Parker, NMED, Chief, DOE OB
T. Michael, NMED, Program Manager, DOE OB

cc w/attachment:

B. Garcia, NMED, Chief, HRMB
G. Saums, NMED, Program Manager, SWQB
T. Taylor, DOE, Program Manager, EM/ER, MS A316
B. Koch, DOE FU-1 & FU-4, MS A316
J. Jansen, LANL, Project Manager, EM/ER, MS M992
J. Canepa, LANL, Deputy Project Manager, EM/ER, MS M992
G. Allen, LANL, FU-1 FPL, MS E525
SF Fiche

Refer to NMED File No. 1118 ER
New Mexico Environment Department
DOE Oversight Bureau Comments on the
Environmental Assessment for Lease of Land for the Development of a Research Park at Los Alamos National Laboratory,
Predecisional Draft, July 23, 1997

Specific comments:

1. § 2.1.2, Page 9, Proposed Land Use, Paragraph 3

"Two examples of conceptual layout options are shown in Figures 2-2 and 2-3."

These figures should be revised to clearly show the proposed locations of the buildings, paved areas, etc., in relation to the locations of the PRSs which are depicted on Figure 3-1 (p. 24).

The boundaries of PRSs 3-038(a) and (b) appear to be near the location of a proposed building, parking lot, and road. Because the lateral extent of contamination may not be known, these improvements may be built over contaminated soils. Excavation of soil from these PRSs could result in the generation of radioactive or mixed waste and result in radioactive exposure to workers or the public. In addition, if remediation is required at these PRSs, there will need to be sufficient work space along the western boundary of the PRSs for contamination reduction zones and to allow access for heavy machinery. Consideration should be given to requiring a generous buffer zone between any improvements and the western boundary of these PRSs.

2. § 2.1.2, Page 12, Proposed Land Use, Paragraph 1

"Some excavation activities may occur within or in the vicinity of a LANL Environmental Restoration (ER) Solid Waste Management Unit (SWMU) or Potential Release Site (PRS)...LANL's ER Project staff would review activities in the Proposed Action that involve a SWMU or PRS and would stipulate procedures for working within that site area. It is expected that these sites would be approved for no further action by the New Mexico Environment Department (NMED) ... or remediated before any construction is approved within the lateral extent of the PRS."

§ 4.1.1.3, Page 32-33, Utility Demands, Paragraph 1:

"...Research Park tract would need to be supplemented in order to include the location of a proposed utility corridor. As with any

trenching, this action could uncover buried materials or artifacts and standard procedures for unanticipated discoveries would be followed."

§ 4.1.4, Page 37, Environmental Restoration, Paragraph 1

"Until the appropriate agency (EPA or NMED) determines that PRSs meet regulatory clean-up standards applicable to planned future uses, the areas at or near each PRS would not be developed."

The document is unclear regarding whether the PRSs will be developed or otherwise disturbed before NMED approves no further action for the sites. The document should clearly state whether the County or others will be allowed to trench or excavate within or near PRS boundaries before NMED approves the site for no further action. The areas at or near each PRS should not be developed or disturbed until after NMED approves no further action for that PRS. If DOE allows these areas to be developed or disturbed, the County should be aware that these activities may result in the generation of hazardous, radioactive, or mixed waste and may result in exposure of workers to radioactivity. In addition, these areas may be investigated or remediated in the future which could impact the Research Park structures and developments. In addition, the document should state that DOE will be responsible for ensuring compliance with institutional controls (if any) at each PRS if the site is approved for no further action.

3. § 3.6, Page 23, Environmental Restoration, Bullet 2

"Excavation was continued until the radiological screening showed levels at or below established guidelines. The excavation was then backfilled with clean soil. The concrete tanks and steel tank apparently had not leaked because the soil and bedrock samples collected from underneath these tanks showed no elevated levels of radioactivity (Vozella 1994)."

(Note: In the RFI Work Plan for OU 1114, March 1994, the citation for the information identified above is "Elder et al. 1986" instead of "Vozella 1994".)

This information regarding contamination in the subsurface soil

is misleading. Subsurface soils at this site appear to contain elevated levels of radioactivity (RFI Work Plan for OU 1114, March 1994). In addition, the soils may contain hazardous constituents from releases of industrial wastes, such as cyanide wastes, electroplating wastes, solvent wastes, etc. LANL has proposed additional sampling to define the nature and extent of contaminants. Sampling and possible remediation of the site may be years away.

The RFI Work Plan does not state whether the surface soils were found to be contaminated during the 1982 clean up. If the surface soils were contaminated, they could have been transported northward toward Los Alamos Canyon via storm water runoff.

The document should be revised to include a description of the levels of radioactivity in the surface and subsurface soils. Identify and compare the 1982 guidelines for radioactivity in surface and subsurface soils with today's guidelines. Indicate that in several locations below the former waste lines, LANL was unable to remove sufficient soil to meet their established guidelines. Also, describe the hazardous constituents that are potentially present in the soil at the site.

It may be necessary for the DOE to erect a fence around the boundary of PRSs 3-038(a) and (b) to prevent digging within the PRSs until the area can be investigated and possibly remediated. In addition, the possibility of off-site migration of contaminated surface soils should be investigated.

4. § 4.1.1.3, Page 32-33, Utility Demands

Paragraph 2, Page 32: "In the event that utilities are provided by the County, new utility lines would have to connect existing County utilities located northeast and across the canyon from the proposed Research Park."

Paragraph 1, Page 33: "...Research Park tract would need to be supplemented in order to include the location of a proposed utility corridor. As with any trenching, this action could uncover buried materials or artifacts and standard procedures for unanticipated discoveries would be followed."

Paragraph 2, Page 33: "...The new electrical corridor would

probably extend east from the Research Park tract along the north side of West Jemez Road to the Diamond Drive intersection. The corridor would then continue south along the east side of Diamond Drive and terminate at the TA-3 Power Plant...This would require trenching of about 1,650 ft...to about 3,750 ft..."

If any utility lines are installed or connected to existing lines, no trenching, digging, or excavating activities should be conducted within or near any PRS until the PRS is approved for no further action by NMED. Especially, these activities should not be allowed within the boundaries of PRSs 3-038(a) and (b) and the associated waste pipes (including the inactive waste pipes that lie beneath the intersection of West Jemez Road and Diamond Drive).

5. § 4.1.4, Page 36, Waste Management, Paragraph 1

"...Some of this vegetation would be suitable for mulch or compost and would be taken to the County landfill and processed for this purpose."

It may be necessary for the DOE to erect a fence around the boundary of PRSs 3-038(a) and (b) to prevent removal of vegetation or digging within the PRSs until these sites can be investigated and possibly remediated. Certain vegetation at these sites may contain elevated levels of radioactivity.

6. § 4.1.4, Page 36, Waste Management, Paragraph 1

This section should address the generation of hazardous, mixed, or radioactive waste. Excavation of soil or debris within or near PRS boundaries may result in the generation these wastes in spite of the fact that a site may have been approved for no further action. Soil or debris wastes that are generated by excavating within or near the PRS boundaries must be characterized to determine whether they are hazardous, mixed, or radioactive wastes.

7. § 4.1.4, Page 37, Environmental Restoration, Paragraph 1

"Until the appropriate agency (EPA or NMED) determines that PRSs meet regulatory clean-up standards applicable to planned future uses, the areas at or near each PRS would not be developed. Five

of the PRSs at or near the Research Park tract have been recommended by DOE to NMED for no further action regarding site clean up and three have already been determined to have met the necessary criteria...Because of these recommendations for no further action, no adverse effects to the development of Research Park tract would be expected from these on each of these PRSs nor should any adverse effects from development of these sites result."

The last sentence (above) is not correct. The PRSs were determined by LANL to require no further action based on human health risk. Potential adverse ecological effects have not been evaluated. If the areas within or near PRSs are developed before NMED approves no further action for the sites, adverse effects could be expected to result. The areas at or near each PRS should not be developed until after NMED approves no further action for that PRS.

8. § 4.1.4, Page 38, Environmental Restoration, Paragraph 2

"Upon concurrence from EPA or NMED that no clean-up actions are required at the PRS, DOE would allow the development of these [PRS] sites."

The areas at or near each PRS should not be developed until after NMED approves no further action for that PRS.

9. § 4.1.6, Page 38, Human Health

This section should address human health effects with respect to PRSs 3-038(a) and (b) and construction activities and remediation activities. During construction or remediation activities in or near these PRSs, workers could be exposed to radioactively contaminated soil and hazardous constituents. The excavated soil could be subject to erosion by storm water runoff and wind dispersion. In addition, during remediation activities, the people working at Research Park could be exposed to wind-blown contamination.

10. § 4.1.10, Page 43, Water Quality, Paragraph 1

"As a provision of the DOE lease on the proposed Research Park tract, the County would be required to apply for, and attain, an NPDES permit through the State of New Mexico or EPA. As part of the NPDES construction permit application, the County would prepare and submit an NPDES SWPP Plan. The NPDES SWPP Plan would formally identify all site surface water drainage plans and the best management practices (BMPs) that would be implemented to avoid unnecessary soil erosion during the construction and operation of the proposed Research Park."

BMPs should be implemented and maintained at each PRS to prevent erosion of contaminants during and after construction activities. The BMPs should be maintained at least until the sites are approved for no further action by NMED. BMPs should include devices that minimize the amount of storm water entering and leaving the PRS boundaries.

11. § 4.2, Page 44, Potential Accident Scenarios, Paragraph 1

"This EA evaluates two hypothetical accident scenarios that have a reasonable probability of occurrence at the Research Park. The accident scenarios selected consider both a radiological accident and an industrial chemical accident at the park site. The two accidents are "bounding" cases, meaning that other potential credible accidents related to the Research Park are expected to pose less serious risks."

In the RFI Work Plan (OU 1114, March 1994) an accident scenario is presented that involves PRSs 3-038(a) and (b). This scenario involves the rupture of nearby steam or gas lines in the contaminated soil zone resulting in a surface release of radioactivity to the public and to construction workers. This scenario should be evaluated to determine if this accident would pose a more serious risk than "scenario 1" which is presented on page 44.