

February 27, 2004

By email to: remediation@lanl.gov

Remediation Services Project
P. O. Box 1663, MS M992
Los Alamos, NM 87545

Re: Comments about the Pre-decisional Draft of *The Proposed Risk-Based End-State Vision for Completion of the EM Cleanup Mission at Los Alamos National Laboratory*, LA-UR-03-8254, November 3, 2003

Dear Remediation Services Project Staff:

The signatories of this letter make the following comments about the above-referenced document regarding the risk-based end-state (RBES) vision for Los Alamos National Laboratory (LANL). We are very concerned that the document is incomplete, inadequate and should be revised and re-submitted to the public for comment.

The RBES is the latest attempt by the Department of Energy (DOE) to subvert the power of the State of New Mexico to regulate and order cleanup at LANL under the Resource Conservation and Recovery Act (RCRA). We support the 2002 Corrective Action Order of the New Mexico Environment Department (NMED) finding of "imminent and substantial endangerment" at LANL and the Corrective Action Order.

1. Structure of the RBES Document. The RBES document is incomprehensible to the general public. The technical jargon is evidence that the document is written for computer modelers and scientists within DOE and LANL. The RBES document does not include a table of contents, list of figures, glossary or a list of acronyms. These must be included in the revised RBES document. It is difficult to navigate through the document without a table of contents and a list of figures. Many acronyms are introduced in the text without explanation so that the reader is left wondering what they mean. In Section 1, page 1 there are a number of examples, including ASTM, SAFER, EPA R6 CAS, and TRIAD. There is no reference section so that a reader may investigate supporting documents. For example, again in Section 1, page 1, there is a statement that the future end-state vision will make "use of other LANL documents," yet those documents are neither described nor referenced. Furthermore, the document is very difficult to read. It is full of undefined technical terms, many of which have not been defined, such as "orthophotographs," Section 4, page 1/79.

2. Specific Problems Within the RBES Document. We are concerned that many pueblo lands on the maps are obstructed by the maps' legends on Figure 2.1a (Regional physical and surface interface, Current state) and Figure 2.1b (Regional physical and

surface interface, End state). The maps then necessarily overlook release sites and monitoring locations on such pueblo lands.

Several maps in Section 4 are problematic. For example, 4.1a1, it is impossible to see from where the exhaust emissions are coming.

3. Supporting Documents. The RBES is based on two planning documents: the NMED-approved Revision 8 of the LANL *Installation Work Plan (IWP)*, LANL's *Ten-Year Comprehensive Site Plan (TYCSP)* and the *Land Transfer Report to Congress under Public Law 105-119, A Preliminary Identification of Parcels of Land in Los Alamos, New Mexico for Conveyance or Transfer*.

We are concerned that the RBES references only IWP. We understand that the schedule for the IWP was revised after public comment and approved by NMED in the *Supplement to Installation Work Plan for Environmental Restoration (ER), Revision 8: Annual Work Schedule for 2001 through 2005*. We believe the RBES should cite the supplement as well because it conforms to the NMED RCRA Corrective Action Order.

The TYCSP is not readily available to the public because it contains possible vulnerabilities at LANL, including facility and infrastructure requirements. Several groups requested the document at the January 7, 2004 public meeting at Pojoaque and learned recently that we may not receive a copy for several more weeks. We understand that we will be sent 2004 through 2013 iteration of the TYCSP, but it is uncertain which version of the TYCSP serves as the planning document referenced in the RBES document. This should be clarified in the revision of the RBES.

We would appreciate an explanation of DOE's choice to use the *Land Transfer Report to Congress under Public Law 105-119, A Preliminary Identification of Parcels of Land in Los Alamos, New Mexico for Conveyance or Transfer* in planning the RBES because it does not provide detailed information about the proposed sites for transfer. The *Report to Congress* designates land transfers as economic benefits to Los Alamos County and does not require the most stringent cleanup standards possible. We believe that documents to support the RBES clean-up document should have a clean-up focus rather than an economic focus. Therefore, we request that DOE consider the NMED Corrective Action Order, rather than the *Report to Congress*, when revising the RBES so that the most stringent cleanup standards are considered for LANL.

4. Definition of Risk. In Section 1, page 1/11, we are provided with a definition of risk, but there is no citation as to its source within the federal government. Any definition of risk should be related to the number of cancer deaths per 10,000 people so that there may be consistency between risk estimates, which will facilitate comparison of risk between sites and inform cleanup.

5. Lack of Regulatory Foundation for the RBES. We are very concerned that the RBES is not compelled by any regulatory driver. A regulatory driver is a standard for protection of public health and the environment such as those found in the Clean Water Act, New Mexico Water Quality Act or RCRA. According to the RBES, this document is based on Environmental Protection Agency (EPA) guidance and DOE Orders. EPA guidance is not legally binding and therefore does not provide a regulatory foundation for the RBES. Further, basing the RBES on DOE Orders is a poor decision at best. It is DOE's history of self-regulation that has created the enormous cleanup problem that we now face. We believe that DOE should comply with existing statutes and regulations for cleanup at LANL.

6. Global Climate Change. The RBES does not examine the impacts of global climate change for the Pajarito Plateau. As reported by the Associated Press last week, research conducted by Pacific Northwest National Laboratory (PNNL) indicates that with a 1.5 to 2 degree Celsius increase in temperature, by 2050, there may be a 30% reduction in snow pack in the mountains of Northern New Mexico. PNNL is also predicting that there will be more rain in the winter, thereby causing more wintertime flooding. The revised RBES should incorporate this new information.

7. Assumptions Made and Omissions in the Document. DOE policy states that environmental impacts should be analyzed for a 50-mile radius. See the recent draft or final Environmental Impact Statements for the Modern Pit Facility and Chemistry and Metallurgy Research Building Replacement. We are concerned about how that rule was not followed in the regional analysis found in Section 2.

We are concerned that the City and County of Santa Fe and the City of Albuquerque are not included in Section 2, titled "Regional Context Risk-Based End State Description." By excluding these areas, the RBES does not comply with the aforementioned DOE policy.

For example, the maps included in the section emphasize the remote nature of the LANL site and do not take into consideration the major population center of Albuquerque.

Also, the revised RBES should consider the potential growth of Albuquerque and Santa Fe. The RBES ignores recent findings of the Jemez y Sangre Water Planning Council estimating that there will be a 31,500 acre feet per year gap between supply and demand by 2060 based on population growths within the Council's area. Population is expected to increase from 162,486 people in 2000, to 254,869 people by 2030, and to 357,101 people by 2060.

The RBES does not take into consideration statements made in the *Final Waste Management Programmatic Environmental Impact Statement*, including

DOE still does not have enough information on the volume or contaminant composition of these [cleanup] wastes to perform a meaningful evaluation at this time.... DOE lacks this information primarily because the Department and its regulators do not yet know how much environmental restoration is needed at sites or how it will be accomplished.... Additionally, very little information is available to DOE about the composition of environmental restoration wastes.... [I]t has almost no information on how chemical or radiological contaminants vary within each of these broad types of environmental restoration wastes. DOE, May 1997, Volume I, pp. I-41 and 42.

Until the issues raised by the statement are addressed, no meaningful cleanup can be undertaken at LANL. DOE must consider these statements when revising the RBES.

We note that the copies of the RBES document handed out at the January 7, 2004 public meeting at Pojoaque did not contain "Appendix A: Summary of Current Risk Using RCRA Environment Indicators Worksheets," as referenced in 3.1.4.3. The appendix summarizes the "Current Human Exposures Under Control" and "Migration of Contaminated Groundwater Under Control." We are very concerned about keeping the groundwater in Northern New Mexico free of contaminants from LANL operations. We disagree with statements in the appendix, such as "LANL asserts that migration of contaminated groundwater is currently stabilized." We would like to participate in reviewing these worksheets as DOE compiles the revised RBES.

8. Modification Process. The document is incomplete because it states that modification of the RBES vision document may be done, but does not set forth a procedure for modification.

9. Assumptions Made in Risk-Based End States: Variance Appendix. We are extremely concerned about the unfounded assumptions made by DOE in Section 5, titled "Risk-Based End States: Variance Appendix." Such assumptions are as follows:

- The RBES Vision assumes that all Material Disposal Areas will be covered in place.
- The RBES Vision assumes that LANL can control groundwater exposure at the supply wells and at the Laboratory boundary, and that no treatment of groundwater will be necessary.
- The RBES Vision assumes that no remediation of alluvial waters will be necessary.
- The RBES Vision assumes that no remediation will be necessary for perchlorate in groundwater.

We find these assumptions to be absolutely unacceptable and, unless they can be thoroughly proven, we recommend that they be omitted from this appendix. Rather,

each of the issues addressed in these assumptions should be incorporated as separate explanatory sections in the main body of the document.

Thank you for your attention to these comments. We look forward to reviewing a revised RBES document.

Sincerely,

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