

LANL General

John Kieling

From: Jon Goldstein [jon_goldstein@nmenv.state.nm.us]
Sent: Wednesday, January 14, 2004 10:51 AM
To: Sandra Martin; John Kieling
Subject: FW: U.S. EPA Region 9 Blasts DOE/Livermore's Risk-Based End State "Vision"

This may be helpful in our comments on the RBES I don't know if EPA R6 is planning a simmliar letter or not.

Thanks,

Jon Goldstein
 Communications Director
 New Mexico Environment Department
 (505) 827-0314

-----Original Message-----

From: Susan Dayton [mailto:sdayton@swcp.com]
Sent: Wednesday, January 14, 2004 11:32 AM
To: NMED OB/Courte Voorhees; NMED Secretary/Ron Curry; NMED/Bob Weeks; NMED/Charles Lundstrom; NMED/Derrith Watchman-Moore; NMED/James Bearzi/james_bearzi@nmenv.state.nm.us; NMED/John Kieling; NMED/Jon Goldstein/Comm Director; NMED/Sandra Martin Haz Waste Bureau Chief; NMED/Steve Yanicak; NMED/Tim Michael; NMED/wpmoats@sandia.gov; NMED/wsmcdon@sandia.gov
Subject: U.S. EPA Region 9 Blasts DOE/Livermore's Risk-Based End State "Vision"

January 13, 2004

Roy Kearns
 U.S. Department of Energy
 Livermore Environmental Programs Division
 Lawrence Livermore National Laboratory
 P.O. Box 808, L-574
 Livermore, California 94551

Re: Comments on Draft Risk-Based End State Vision for Lawrence Livermore National Laboratory, Livermore Site and Site 300

Dear Mr. Kearns:

EPA Region 9 has reviewed DOE's draft Risk-Based End State Vision ("Vision") for Lawrence Livermore National Laboratory (LLNL) Livermore Site and LLNL Site 300 dated October 2003. DOE's Vision presents an alternative to cleanup plans that have been selected in Records of Decision (RODs) signed by DOE, EPA, and regulatory agencies of the State of California pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and the Federal Facility Agreements for these sites.

DOE is currently constructing and operating groundwater and soil vapor extraction and treatment systems as selected in the ROD to achieve federal and state cleanup standards. EPA's understanding of the Vision proposal is that DOE plans to shut down these systems at some time in the future, well short of attainment of the standards, and replace the remedy with institutional controls and monitored natural

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attenuation, or monitoring only. EPA, in consultation with the affected community groups and State agencies, finds DOE's Vision to fall short of the statute and promulgated regulations cited above, as well as EPA's policies and guidances for CERCLA cleanups. The purpose of this letter is to call to your attention some of these shortfalls.

DOE's Vision proposes a groundwater cleanup alternative which has been previously rejected by DOE, EPA, and the State regulatory agencies.

The RODs for both sites selected groundwater cleanup plans that would significantly reduce the volume and mobility of contaminated media by extracting and treating groundwater from the saturated zone and soil vapor from the unsaturated zone where appropriate. DOE's current Remedial Designs present a "Smart Pump and Treat" approach, also known as Engineered Plume Collapse, whereby appropriate actions are taken to remove contaminant mass at source areas, and other appropriate actions are taken to reduce contaminant mobility at distal areas.

EPA's understanding of DOE's Vision is that in 20 years, all groundwater and soil vapor extraction will cease. The Vision assumes that in this timeframe it is both acceptable and technically feasible to achieve MCLs in groundwater offsite while no longer reducing the volume of contamination in source areas. Echoing the findings of the Feasibility Studies and RODs for these sites, DOE's Variance Report indicates that these are highly unlikely assumptions. Source removal is an important component of EPA's groundwater policy because it enables and accelerates the rate of cleanup. It is questionable whether how much cost savings would result from a less than Smart Pump and Treat regime.

DOE's Vision sacrifices Long-Term Effectiveness and may pose a long-term liability for NNSA.

The Feasibility Studies for these Sites indicate that the Vision alternative provides a low degree of effectiveness in the long-term. If the Vision alternative were implemented, it is very possible that high concentrations of contaminants would continue to migrate, potentially impacting local drinking and agricultural water supplies. In such an event, DOE would be required to reevaluate the effectiveness of the remedy and potentially expand it. This burden would fall on DOE's National Nuclear Security Administration which would have inherited the sites and the cleanup liability from DOE's Environmental Management (EM). EM, which currently provides cleanup personnel and expertise for the DOE complex, will have been disbanded. Thus, long-term effectiveness should be a significant consideration of not only the regulators and community, but of NNSA as well.

DOE's Vision rejects Applicable or Relevant and Appropriate Requirements (ARARs) as threshold criteria for cleanup decisions.

The Variance Reports for both sites accurately state that the Vision alternative does not comply with ARARs, particularly those of the California State Water Resources Control Board, which protect beneficial uses of groundwater. The NCP provides circumstances under which ARARs can be waived, and EPA has developed detailed guidance for evaluation of technical impracticability. DOE has reported great success at removing contaminant mass at the LLNL sites through implementation of Engineered Plume Collapse; however, if at some time in the future DOE finds new information which substantially supports the need to significantly alter the response action and waive an ARAR, DOE can request and EPA will provide such consideration.

Perception of DOE's commitment to cleanup may be adversely affected.

In the two months since DOE published the draft Visions for the LLNL sites, EPA understands that DOE has modified the content of the Vision alternative, replacing Monitored Natural Attenuation (MNA) with monitoring only. EPA's understanding is that DOE no longer feels that lines of evidence supporting natural attenuation exist or can be documented. EPA further understands that the Draft Final Vision statement will propose monitoring and institutional controls. The public may question DOE's level of commitment to even these modest measures, which would need to be implemented in perpetuity if the Vision alternatives were to be implemented.

EPA has been flexible with DOE in selecting non-active remedies where appropriate.

EPA worked closely with DOE during development of the Feasibility Studies to identify and evaluate a broad range of response actions in accordance with the NCP. In addition to active remedies such as those discussed above, EPA helped DOE propose and gain acceptance for area-specific remedies such as monitoring only, monitoring with institutional controls, and monitored natural attenuation. These non-active remedy selections are documented in the ROD for Site 300. EPA has demonstrated its capability and willingness to base remedy selection on reason and sound science. EPA Region 9 will continue to work with DOE in this fashion, and hopes that DOE will continue to work with the regulators and members of the community in good faith.

If you have any questions regarding this matter, please call Kathy Setian at (415) 972-3180.

Sincerely,

Sean Hogan
Chief, Private Sites/DOE Section

cc: Jessie Roberson, DOE
Linda Barton, City of Livermore
Bob Ferry, DOE consultant
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