

General

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NEPA

Gedi Cibas, Ph.D.
New Mexico Environment Department
Harold Runnels Building
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Santa Fe, NM 87502

Re: NMED File No. 1013ER

Dear Dr. Cibas:

This responds to your August 6, 1996 letter commenting on the Predecisional Draft Environmental Assessment (EA) for the Effluent Reduction at the Los Alamos National Laboratory (LANL), Los Alamos, NM (DOE/EA-1156). We appreciate the State's interest in the Los Alamos Area Office's (LAAO) National Environmental Policy Act (NEPA) program and thank you for commenting on the draft EA. The final EA reflects changes made to the text to address comments received from your office and other stakeholders. The Department of Energy (DOE) issued a Finding of No Significant Impact (FONSI) for this project and a final EA on September 18, 1996 (copies of the EA and FONSI are enclosed). Our decision was to select the proposed action and proceed with its implementation.

In your letter, you asked several questions and made some observations and comments that I would like to briefly address. For convenience, I refer to your comments by number in my responses presented below. Text locations referencing changes to the final EA document are indicated.

1. The sentence in the third paragraph of the executive summary that mentions diminished transport of existing contaminants has been changed to read: "The elimination of effluent at the outfalls would have a slight beneficial effect in that there would likely be diminished mobilization and transport of any existing contaminants below the outfalls." A review of readily available literature regarding wetland species has revealed that there remains some degree of scientific uncertainty regarding how and to what extent various wetland plants assist in removing specific contaminants from the environment and immobilizing them within their tissues. A preponderance of published evidence indicates that, for example, species such as cattail (*Typha latifolia* L.) uptake heavy metals through the roots that is derived primarily from the soil it is growing in rather than from overlying surface water; metals are preferentially held in the plants' rhizomes and may be slowly released back to the root zone environment as the plants die and decay. Given the size of individual wetlands associated with outfalls connected to the proposed action, and the known contamination with silver at a single outfall area, we consider it unlikely that any of the wetland plants uptake and store large



quantities of heavy metals from the environment at LANL. Furthermore, it is unlikely that there would be an appreciable difference in the plant uptake, storage, and ultimate decay release of any existing environmental contaminants under either the proposed action or the no action alternatives. Because there would be a decrease or outright elimination of industrial effluents at some outfalls, as well as an elimination of some outfalls entirely under the proposed action, it is likely that the corresponding decrease in available transport mechanism (in terms of quantity, timing and severity of a given industrial wastewater release event) would result in at least a slight environmental improvement if the proposed action is implemented. The EA text has been augmented to clarify this issue within Sections 3.3 and 3.6.1.

2. The EA has been changed to better clarify the current wastewater discharge conditions at LANL. The number of outfalls in use at any given time changes as individual projects are started and completed. Projects at LANL are predominately research and development projects with finite life spans. The individual projects may be performed at any suitable LANL Technical Area. Since this section primarily serves to set the stage for discussion of the proposed action and no action alternatives, discussion of individual projects into the text was not included; such a discussion would necessarily be lengthy to provide adequate enhancement to the uninformed reader.
3. Both of your suggestions have been considered and clarification regarding Discharge Plan 857 and Best Management Practices has been added to the text of the EA within Sections 2 and 6, and to Appendix A.
4. LANL's Radioactive Liquid Waste Treatment Facility treats radioactive liquid waste prior to its discharge to the environment. There may be residual radioactive contamination in the vicinity of various outfalls from historic release events; since environmental sampling through the LANL Environmental Restoration (ER) Project has not been completed for all outfalls associated with the proposed action, this is currently unknown as is stated in the text of the EA. If existing radioactive contamination is discovered, it will be the subject of further investigation and consideration for cleanup and removal, or closure in place under the ER Project, which is overseen by the Environmental Protection Division and the State of New Mexico in coordination with the State Surface Water Quality and Ground Water Quality Bureaus. No changes have been made to the text.
5. The recommendation of No Further Action (NFA) with regards to the need for removal of contaminated soil for thirteen outfall areas designated as Solid Waste Management Units (SWMU) or Potential Release Sites (PRS) was made with the consideration that industrial effluent could be reduced or eliminated in the future at various outfalls. Since a decision had not been made regarding the proposed action at the time the recommendations were required, it would have been premature for the ER Project to base their recommendations on assumptions of wetland loss. Monitoring soil and water and implementing Best Management Practices (BMP) at these sites to protect surface and ground water quality is being evaluated by LANL through the systematic evaluation process in coordination with NMED. The text of the EA has been modified to include this information within Chapter 3.3.

Because this is an EA level analysis, the analysis makes use of qualitative information and best professional judgement where quantitative information is not available. Most of the National Pollutant Discharge Elimination System (NPDES) permit exceedances for outfalls associated with the proposed action have been for physical parameters, such as pH or total suspended solids, or chemical parameters, such as free chlorine or phosphorus. These types of exceedances do not result in long-term environmental contamination so much as they may render the water temporarily harmful to some forms of stream life (particularly microinvertebrates) or other animals, including man; therefore this information is not conducive to the type of use suggested. All available information is summarized and presented in the EA regarding the status of SWMUs and PRSs that have not yet been sampled. Historical chemical and material use data is not complete for facilities linked to the outfalls associated with the proposed action; available information on historical LANL chemical and material use have been gathered and used to the extent possible to identify SWMUs and PRSs. Summarizing the information that these designations were based upon in the EA is not vital to making a decision on the proposed action, nor are the identification numbers for SWMU and PRS, and these have not been added to the text.

The EA text has been clarified to include the fact that NMED must concur with the environmental remediation recommendations for the PRSs and SWMUs. It is not anticipated that any of the SWMUs or PRSs associated with outfalls that are connected to the proposed action would contain high explosives material, although sample analysis generally includes those analytes. The elimination of such wastewater effluent at particular outfalls and a consideration of associated SWMUs was the subject of an earlier DOE EA, the *Environmental Assessment for the High Explosives Wastewater Treatment Facility* (DOE/EA 1100, August 1995), and its FONSI for the proposed action. The accident analysis for the Effluent Reduction EA considered the possibility of digging up contaminated soil containing high explosives as a bounding worst case possibility, but this is considered unlikely and no changes have been made to the EA.

6. As already mentioned under remarks for comment Number 1, the EA text in Chapter 3.3 has been changed slightly to clarify the statements made in the text regarding the slight decrease in any existing contaminant transport due to the decrease or elimination of industrial effluent under the proposed action.
7. The EA incorporates available surface water monitoring data presented in the LANL Annual Environmental Surveillance Reports by reference (see Chapter 3.0 of the EA) for the sake of brevity. Information that is needed for clarity and reader understanding pertinent to the analysis is summarized and presented already in the text of the EA.
8. Text has been added to Chapter 3 regarding the presence of intermediate waters at LANL, and to clarify the discussion of springs and their source waters. Additionally, text has been changed to clarify the canyons that may contain perennial reaches.
9. Text is presented in the body of the EA and in Appendix A regarding the individual wetlands and their probable future if the proposed action is

implemented. The EA analysis considers whether the reduction or elimination of industrial effluent discharged through a particular outfall would affect the long-term life of the associated wetlands. This is the converse of the recommendation regarding the need to consider whether the wetlands could be supported adequately by stormwater alone. DOE believes that the approach to the subject is appropriate since it frames the discussion in terms of the proposed action. BMPs are implemented as needed at LANL by the ER Project to protect SWMUs and PRSs from potential contaminant transport by stormwater or effluent. The text of the EA has been modified to include this information.

Text in Chapter 3.6.1 has been clarified as follows: "There have been no systematic studies at LANL to correlate specific NPDES Permit exceedances with plant damage." While somatic, cellular, and even nuclear damage to plants has been documented in various studies as being caused by exposure or uptake of various contaminants, no in situ studies have been conducted at LANL to correlate accidental NPDES Permit exceedances with observed plant damage. Any discussion of casual observance of gross plant damage related to any NPDES permit exceedance is speculative at best and has not been included in the EA analysis.

10. The Low Energy Demonstration Accelerator (LEDA) project, as discussed in the *Environmental Assessment for the Low Energy Demonstration Accelerator, Technical Area 53*, DOE/EA 1147, and in the FONSI signed April 1996, will not produce wastewater until sometime in 1997, and then only in moderate amounts until about five years after operation is initiated. Both the ER Project and the LANL sitewide surveillance program will be collecting additional data and monitoring specific locations within the canyon and at PRSs throughout the life of the LEDA project.

The wetlands that would be diminished and perhaps eliminated by the proposed action are unlikely to have achieved full function as filters or sinks for sediment and contaminant disposition given their sizes and historical fluctuation based on both LANL operational variations and climatic or seasonal changes. Additionally, many of the wetlands associated with the proposed action are located in canyon bottoms where they are particularly vulnerable to scouring events.

11. The persistence of the four remaining wetlands is unchanged either under the proposed action or the no action alternatives. Therefore, there is no change to consider in the EA analysis. The subject has been brought to the attention of the persons responsible for oversight of water quality at LANL, however.
12. Additional discussion has been added to the text in Chapter 6.0 regarding Discharge Plans 857 and 1052.
13. (a) Discussion presented in Appendix A regarding Outfall No. 2 has been clarified to include the information that the separation of air washer effluent from stormwater would be accomplished by rerouting the air washer effluent to the sanitary sewer system within the building rather than exterior to it. Since the EA analysis is performed early in the planning process, it is not always possible to have all of the project details that would logically flow from more detailed design.

Therefore, the description of the proposed action given in Chapter 2 is bounding of the project that is analyzed in the EA. The specific details given in Appendix A are within these bounding assumptions of potential impacts. Should later detailed design reveal some aspect of the proposed action that was not bound by this analysis, an additional NEPA analysis would be conducted at that time. This EA analysis, as are all others, is undertaken in the good faith that this is a remote possibility since enough is known about the proposed action to make undertaking the EA analysis reasonable at this time.

(b) The proposed action is a hybrid of both those actions undertaken to address the Waste Streams Corrections Program (WSCP) and those taken as part of the Outfall Reduction Program. Depending upon whether a specific outfall is included in the WSCP, the proposed activities included under the proposed action may or may not achieve the goals of the WSCP.

(c) The time frame for the LEDA project effluent discharges is from 1997 to about 2003 (approximately seven years). The project is subject to Congressional funding and it is possible that it may not continue beyond five years, when it is expected that the primary focus of the research will have been accomplished.

(d) As suggested, the leading sentence under this discussion has been clarified as follows: "There are four stormwater drains that discharge stormwater from the roof through Outfall 04A127, which is permitted to receive once-through cooling water from TA-35, Building 213, the Target Fabrication Building (Figure A-5)." Additionally, the description of proposed activities associated with this outfall have been clarified to include the statements: "No external construction activities would be conducted at this outfall. A recirculation system may be installed under the proposed action or the effluent may be rerouted to the SWSC Plant."

(e) The description of the activities included under the proposed action at this outfall has been modified to include the following statements: "The proposed action is to identify the source of the effluent and design corrective actions. Exterior construction would not exceed the maximum trench size noted for the proposed action in Chapter 2 of the EA. Industrial effluent would likely be rerouted to the SWSC Plant." Again, as already noted in a case such as this, the EA analyses the potential environmental effects based on a bounding description of the proposed action where specific design details are not available this early in the proposed projects' design process.

14. (a) While the implementation process for the proposed action would not be allowed to proceed if it threatened compliance with other environmental regulations and statutes, the details of how permit modifications and similar requirements would be satisfied are not the focus of the EA analysis and do not need to be included in the document.

(b) DOE Order 5400.5 addresses the discharge of uncontaminated liquids onto surface and subsurface contaminated areas. The ER Project employs the use of BMPs to prevent the inadvertent transport of contaminants away from a SWMU or PRS via stormwater. This is an on-going practice at LANL and mention of this practice has been included in the EA under Chapter 3.3.

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(c) Mention of the NPDES Permit for stormwater is made in Chapter 3 of the EA.

(d) The EA employs a "sliding scale" approach to the level of discussion provided for potential environmental effects. The potential for contamination transport due to water decrease and changes in habitat are discussed in the EA. Since there is anticipated to be the likelihood of only a slight positive difference in potential effects between alternatives (the proposed action compared to no action), the discussion is reasonably brief.

I appreciate both your comments and your support of the LAAO NEPA program. I hope that this letter, together with accompanying changes made to the EA, has further clarified some of your comments regarding the proposed action. If you would like further information regarding this project, please call Ken Zamora, Office of Environment and Projects, at (505) 665-5047. If you have any questions regarding our LAAO NEPA program, please call Elizabeth Withers, NEPA Compliance Officer, at (505) 667-8690.

Sincerely,



G. Thomas Todd
Area Manager

LAAMEP:7EW-200

Enclosures

cc w/o enclosures:

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