



OFFICE OF INSPECTOR GENERAL

U.S. Department of Energy

# AUDIT REPORT

DOE-OIG-22-31

May 2022

**FOLLOWUP ON ISSUES MANAGEMENT  
AT THE LOS ALAMOS NATIONAL  
LABORATORY**



**Department of Energy**  
Washington, DC 20585

May 6, 2022

MEMORANDUM FOR THE MANAGER, LOS ALAMOS FIELD OFFICE

SUBJECT: Audit Report on Followup on Issues Management at the Los Alamos National Laboratory

The attached report discusses our review of the Issues Management program at the Los Alamos National Laboratory. This report contains one recommendation that, if fully implemented, should help ensure that program requirements are met. Management fully concurred with our recommendation.

We conducted this audit from March 2021 through February 2022 in accordance with generally accepted government auditing standards. We appreciated the cooperation and assistance received during this audit.

A handwritten signature in black ink, appearing to read "John E. McCoy II".

John E. McCoy II  
Deputy Assistant Inspector General  
for Audits  
Office of Inspector General

cc: Deputy Secretary  
Chief of Staff



**Department of Energy**  
**Office of Inspector General**  
**Followup on Issues Management at the Los Alamos**  
**National Laboratory**  
(DOE-OIG-22-31)

**WHY THE OIG  
PERFORMED THIS  
REVIEW**

To safely perform nuclear-related activities, the Department of Energy's Los Alamos National Laboratory (LANL) is required by Department orders to establish: (1) an issues management process capable of ensuring that problems are evaluated on a timely basis, and (2) worker feedback mechanisms including employee concerns programs. Further, the employee concerns programs must be supplemented by a process to resolve differing professional opinions.

We conducted this followup audit to determine whether: (1) LANL took corrective actions related to the recommendations in our prior report on *Issues Management at the Los Alamos National Laboratory* (DOE-OIG-16-07, February 2016), and (2) actions taken to correct the deficiencies in our prior report resulted in an issues management program compliant with Federal requirements.

### **What Did the OIG Find?**

We found that LANL took corrective actions related to Recommendations 1 through 3 in our prior report. Specifically, our current review did not reveal significant matters with LANL's Issues Management program's compliance with Federal requirements. However, we found that LANL's corrective actions related to Recommendation 4 did not always ensure all applicable subcontracts contained the Differing Professional Opinion (DPO) requirement. Specifically, we identified 5 of 16 subcontracts sampled that did not have the DPO requirement documented as required.

We attributed this issue to LANL's process of incorporating supplemental requirements into its subcontracts. Specifically, subcontracts designated for work offsite did not have an Exhibit F document, which was how LANL included the DPO requirements in subcontracts.

### **What Is the Impact?**

LANL is at risk of environmental, safety, or health concerns going unreported. By not including Exhibit F documents and the mandatory DPO language into subcontracts for offsite work that LANL categorized as medium- and low-hazard, subcontractor employees may not know a process exists to report differing professional opinions involving technical issues that have a potentially adverse environmental, safety, or health impact.

### **What Is the Path Forward?**

To address the issue identified in this report, we have made one recommendation that, if fully implemented, should help ensure that the DPO requirements are included in all subcontracts issued by LANL.

## BACKGROUND

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The Department of Energy's Los Alamos National Laboratory (LANL) is part of the National Nuclear Security Administration nuclear security enterprise. LANL's primary mission is to ensure the safety, security, and reliability of the Nation's nuclear stockpile. To meet its mission, LANL operates numerous nuclear facilities where activities include plutonium processing, packaging and transportation of nuclear materials, and management of radioactive and hazardous waste.

Department orders and guidance reflect the Department's commitment to operating its nuclear facilities and conducting work activities in a manner that ensures compliance with environmental, safety, and health requirements. Specifically, the Department has policies requiring its management and operating contractors to establish an issues management process capable of ensuring that problems are evaluated and corrected on a timely basis. Department Order 226.1B, *Implementation of Department of Energy Oversight Policy* (Department Order 226.1B), requires an effective issues management program that must be able to categorize findings based on risk and priority. Department Order 226.1B goes on to require that the issues management process must ensure high-significance findings receive a thorough analysis of underlying causes, corrective actions that address underlying causes, and a subsequent effectiveness review of any completed corrective actions.

In February 2016, the Office of Inspector General issued an audit report on *Issues Management at the Los Alamos National Laboratory* (DOE-OIG-16-07). Overall, our review found LANL's corrective action program did not always adequately address issues, effectively prevent their recurrence, or consistently identify systemic problems. To correct these problems, we recommended that LANL ensure that:

1. All high-significance deficiencies are processed in accordance with the requirements of Department Order 226.1B.
2. Corrective action management procedures include improved guidance on categorization of issues by risk, including metrics for identifying appropriate risk levels.
3. Corrective action management procedures include guidance on timeliness of issue entry and closure.

We also found weaknesses in LANL's process for resolving Differing Professional Opinions (DPOs). Specifically, Department Order 442.2, *Differing Professional Opinions for Technical Issues Involving Environmental, Safety, and Health Technical Concerns* (Department Order 442.2), requires that subcontractors be informed of the Department's process for concerns related to environmental, safety, and health that cannot be resolved using routine processes. However, LANL did not include the requirements of the DPO process in its subcontracts as required. To correct this problem, we recommended that LANL ensure that:

4. A formal, documented process is developed that consistently includes DPO requirements in subcontracts involving work that has potential for significant safety, health, and environmental risks.

We conducted this followup audit to determine whether: (1) LANL took corrective actions related to the recommendations in our prior report on *Issues Management at the Los Alamos National Laboratory* (DOE-OIG-16-07, February 2016), and (2) actions taken to correct the deficiencies in our prior report resulted in an issues management program compliant with Federal requirements.

## **RESULTS OF THE AUDIT**

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We determined that LANL took corrective actions related to Recommendations 1 through 3 in our prior report. Specifically, our current review did not reveal significant issues with LANL's Issues Management program's compliance with Federal requirements. However, we found that LANL's corrective actions related to Recommendation 4 did not always ensure all applicable subcontracts contained the DPO requirement. Specifically, we identified 5 of 16 subcontracts sampled that did not have the DPO requirement.

### **Prior Report Recommendation 1: LANL's Processing of High-Significance Issues**

Our review did not find anything to indicate that LANL was not processing high-significance issues in accordance with the requirements in Department Order 226.1B<sup>1</sup>. Specifically, we reviewed all 40 high-significance issues for fiscal year 2017 through March 8, 2021, and found, with few exceptions, that the documentation in LANL's Issues Management tool identified underlying causes and corrective actions that addressed the root causes, determined the extent of the issue, and evaluated the efficacy of completed corrective actions.

### **Prior Report Recommendation 2: Categorization of Issues by Risk**

Our review did not find anything to indicate that LANL was not properly categorizing high-risk issues. Specifically, to address concerns expressed in our prior report, LANL updated its procedures for risk categorization. LANL updated corrective action procedures to include improved guidance on categorization of issues by risk, including metrics for identifying appropriate risk levels. Specifically, LANL implemented a new Issues Management tool and an updated Issues Management procedure in September 2017 to include guidance that aligned with Department Order 226.1B. The Issues Management procedure required the categorization of significance levels via a combination of the severity of the issue and the likelihood of the occurrence. These process updates were intended to result in a risk-based significance determination and categorization of incidents into high, medium, or low-significance. However, the Issues Management procedure was not always clear on the categorization of issues, as noted

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<sup>1</sup> In our audit report on *Corrective Actions on the Office of Enterprise Assessments' Findings and Deficiencies* (A20GT023), we found the Department did not always fully address findings and deficiencies identified by the Office of Environment, Safety and Health Assessments at the Savannah River Site and LANL. Three reports specific to LANL were identified as not fully addressing the findings and/or deficiencies. Two reports were assigned risks other than "high," and no actions were taken for the other report.

in an internal review completed by LANL. Specifically, a *Fiscal Year 2019 Issues Management Records Analysis* report states that some Issues Management personnel had noted that the risk criteria were vague and did not account for all types of risks that occurred at LANL, thereby making risk selection difficult and subjective. However, our review of high-significance issues did not reveal any incidents that were not categorized at the correct significance level.

### **Prior Report Recommendation 3: Timeliness of Issue Entry and Closure**

Our review determined that LANL updated certain portions of its Issues Management procedure to track the timeliness of the entry and closure of an issue. Specifically, LANL implemented a new category for issues that required long-term resolutions. A LANL official stated that LANL did not want to make the guidelines too rigid because LANL did not think a “one-size fits all” solution was appropriate for an organization as large as LANL. In July 2020, LANL developed a process to ensure there was accountability for the long-term items. This process required senior managers to work with the Issues Management oversight board to develop a plan for tracking an issue’s progress toward completion.

### **Prior Report Recommendation 4: DPO Requirements**

LANL’s process to include DPO requirements in subcontracts did not always ensure all applicable subcontracts contained the mandatory DPO requirement. Specifically, we identified 5 out of 16 subcontracts or approximately one-third of the subcontracts we sampled that did not have the mandatory DPO requirement.<sup>2</sup> According to Department Order 442.2, the DPO requirement must be included in contracts for the design, construction, management, operation, decontamination, decommissioning, or the demolition of Department sites or facilities. Further, Department Order 442.2 defines “employee” as any person working for the Department, including the National Nuclear Security Administration, or a Department contractor or subcontractor, on a Department project. Finally, Department Order 442.2 does not distinguish between on and offsite work, nor does it identify hazard categories for work.

LANL incorporated the mandatory DPO requirements into subcontracts by including the Exhibit F document, the contract element communicating environment, safety, and health requirements. We judgmentally selected a sample of 16 subcontracts from all 65 fiscal year 2020 active subcontracts valued at \$5 million or more to review whether DPO requirements were being included as required. We determined 5 out of 16 subcontracts sampled lacked the mandatory DPO requirement. For example, an offsite subcontract to validate and revise the design of the transuranic liquid waste facility did not contain the DPO requirement in its contract. According to a LANL official, this occurred, in part, due to LANL’s implementation of the Exhibit F templates process. Specifically, LANL decided not to require Exhibit F in subcontracts where the work occurred offsite. Subsequently, in 2019, an incident occurred in which sealed hazardous material was accidentally released. The work was performed offsite by LANL

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<sup>2</sup> We selected a total of 30 subcontracts for review. However, we included some subcontracts in our sample for review that did not appear, on the surface, to require the DPO language that ensured the categorization and scope of work matched. We determined that the DPO requirement for 14 sample items was not required based upon the subcontracts’ scope of work. Therefore, only 16 of the 30 sample items should have contained the DPO language. In the end, we determined that 5 of these 16 subcontracts that required the DPO language did not contain the DPO language.

subcontractors. While we did not determine whether the lack of the DPO requirement was a cause of the incident, according to a LANL official, LANL has included Exhibit F since the incident for what it determines to be high-hazard offsite subcontracts. However, Department Order 442.2 does not limit the requirement only to high-hazard categories of work. Instead, Department Order 442.2 requires the DPO requirement in all contracts for the design, construction, management, operation, decontamination, decommissioning, or the demolition of Department sites or facilities. While LANL revised its process to include Exhibit F in high-hazard offsite subcontracts, it did not address work specified by Department Order 442.2 as needing the DPO requirement in offsite work LANL categorized as medium- or low-hazard. As a result, LANL did not ensure that all subcontract personnel were aware of the DPO process to raise environmental, safety, and/or health concerns because Exhibit F was not included in subcontracts categorized as medium- and low-hazard offsite work.

Without incorporating the DPO requirements into all applicable subcontracts, LANL risks environmental, safety, and/or health concerns going unreported. In other words, by not including Exhibit F and the DPO language into medium- and low-hazard offsite work, subcontractor employees may not know a process exists to report a differing professional opinion involving technical issues that have a potentially adverse environmental, safety, or health impact.

## **RECOMMENDATION**

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We recommend that the Manager, Los Alamos Field Office, direct LANL to:

1. Ensure all subcontracts for the design, construction, management, operation, decontamination, decommissioning, or the demolition of Department sites or facilities include the DPO provision as required by Department Order 442.2.

## **MANAGEMENT RESPONSE**

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Management fully concurred with the report's recommendation and identified a corrective action to address the issue in the report.

Management's comments are included in Appendix 3.

## **AUDITOR COMMENTS**

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Management's comments and proposed action were responsive to our recommendation, and we agree with the proposed action.

### **OBJECTIVE**

We conducted this followup audit to determine whether: (1) Los Alamos National Laboratory (LANL) took corrective actions related to the recommendations in our prior report on *Issues Management at the Los Alamos National Laboratory* (DOE-OIG-16-07, February 2016), and (2) actions taken to correct the deficiencies in our prior report resulted in an issues management program compliant with Federal requirements.

### **SCOPE**

The audit was performed from March 2021 through February 2022 at LANL in Los Alamos, New Mexico. The audit scope included a review of high-significance issues at LANL from fiscal year 2017 through March 8, 2021, and 65 active subcontracts from fiscal year 2020 valued at \$5 million or more for the Differing Professional Opinion (DPO) requirements. We conducted this audit under Office of Inspector General project number A21LA007.

### **METHODOLOGY**

To accomplish our audit objective, we:

- Reviewed policies and procedures pertaining to Department of Energy oversight, including management of deficiencies, corrective actions, and DPO requirements.
- Interviewed LANL personnel involved in the Issues Management program and subcontract administration.
- Reviewed all 40 high-significance corrective action records.
- Selected a judgmental sample of 30 active subcontracts based on contract value of \$5 million or more and scope of work from fiscal year 2020. We selected 16 subcontracts with a scope of work for the design, construction, management, operation, decontamination, decommissioning, or the demolition of Department sites or facilities to determine whether DPO requirements were included as required. We selected an additional 14 subcontracts to evaluate whether the subcontracts properly excluded the DPO requirement based upon the subcontract's scope of work. Because the selection was based on a judgmental sample, results and overall conclusions cannot be projected to the entire population of subcontracts.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. We assessed internal controls and compliance with laws and regulations necessary to satisfy the audit objective. In particular, we assessed LANL's Issues Management program to validate its compliance with several key precepts in Department Order 226.1B, which requires contractor issues management systems



## **Appendix 1: Objective, Scope, and Methodology**

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maintain documentation of root cause analyses, corrective action plans, and effectiveness evaluations for high-significance issues along with risk categorization and timely closeout and resolution of all issues. However, because our review was limited to these internal control components and underlying principles, it may not have disclosed all internal control deficiencies that may have existed at the time of this audit. We also assessed the reliability of computer-processed data by reviewing LANL's universe of high-significance issues and associated corrective actions. We determined that the data was sufficiently reliable.

Management officials waived an exit conference on April 14, 2022.

## Appendix 2: Prior Reports

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- Audit Report on *Issues Management at the Los Alamos National Laboratory* (DOE-OIG-16-07, February 2016). The report identifies significant weaknesses in Los Alamos National Laboratory's (LANL) implementation of an effective Issues Management program. These problems adversely affected the usefulness of the corrective action program and the differing professional opinions process. Overall, LANL's corrective action program did not always adequately address issues, effectively prevent their recurrence, or consistently identify systemic problems. Additionally, LANL did not include the requirements of the differing professional opinions process in its subcontracts as required. The deficiencies in the corrective action program and the differing professional opinions process occurred because LANL had not fully implemented Department of Energy requirements.
- Audit Report on *Corrective Actions on the Office of Enterprise Assessments' Findings and Deficiencies*. The report shows that the Department did not always fully address findings and deficiencies identified by the Office of Environment, Safety and Health Assessments. Specifically, in the 18 reports we reviewed at two sites, we found that corrective actions taken by the Department organizations did not address the findings and/or deficiencies for 9 reports and were not documented in the sites' issues management systems, as required, for 4 reports. In addition, we found corrective actions were incorrectly documented for two reports. Finally, corrective action plans were not developed for 6 of the 13 reports that required them. These issues occurred, in part, because the sites we reviewed did not always provide sufficient oversight pertaining to the Office of Environment, Safety and Health Assessments' findings and deficiencies, to include inconsistent oversight of the issues management processes. In addition, the Office of Environment, Safety and Health Assessments' processes presented opportunities for improvement, to include the report writing process and tracking of the findings and deficiencies. As a result of this audit, the Office of Environment, Safety and Health Assessments has taken steps to address these issues.

## Appendix 3: Management Comments

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Department of Energy  
Under Secretary for Nuclear Security  
Administrator, National Nuclear Security Administration  
Washington, DC 20585



April 6, 2022

MEMORANDUM FOR TERI L. DONALDSON  
INSPECTOR GENERAL

FROM: JILL HRUBY 

SUBJECT: Response to the Office of Inspector General Draft Audit Report  
*Follow-up on Issues Management at the Los Alamos National  
Laboratories (A21LA007)*

Thank you for the opportunity to review and comment on the subject draft report. NNSA appreciates the auditors' validation of corrective actions taken in response to previous Office of Inspector General (OIG) findings and confirmation that the Los Alamos National Laboratory (LANL) Issues Management Program complies with Federal requirements.

NNSA concurs with the new OIG recommendation to ensure all subcontracts for the design, construction, management, operation, decontamination, decommissioning, or the demolition of Department sites or facilities include the Differing Professional Opinion (DPO) provision as required by Department Order 442.2. The DPO process is an important element to help ensure environment, safety, and health concerns are fully considered and addressed. While no unreported concerns were identified by the audit, LANL will update the relevant subcontract master agreements to include the DPO clause and incorporate it into standard subcontract terms and conditions going forward. These actions are expected to be completed by June 30, 2022. If you have any questions regarding this response, please contact Mr. Dean Childs, Director, Audits and Internal Affairs, at (301) 903-1341.

## FEEDBACK

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