



OFFICE OF INSPECTOR GENERAL

U.S. Department of Energy

AUDIT REPORT

DOE-OIG-21-28

June 2021

**SUBCONTRACTOR-PERFORMED
COMMERCIAL GRADE DEDICATION AT
LOS ALAMOS NATIONAL LABORATORY**



Department of Energy
Washington, DC 20585

June 11, 2021

MEMORANDUM FOR THE MANAGER, LOS ALAMOS FIELD OFFICE

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

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

SUBJECT: INFORMATION: Audit Report on "Subcontractor-Performed
Commercial Grade Dedication at Los Alamos National Laboratory"

RESULTS IN BRIEF

We could not determine whether Los Alamos National Laboratory (LANL) ensured that subcontractor-performed Commercial Grade Dedication fully identified and evaluated critical characteristics in accordance with the American Society of Mechanical Engineers' *Quality Assurance Requirements for Nuclear Facility Applications* (NQA-1-2008 and NQA-1a-2009) Standard. Specifically, LANL could not provide us with a list of Commercial Grade Dedication procurements. Rather, we were provided with a list of all procurements that performed a safety function. We selected a sample of 30 items, but found that only 3 items potentially required Commercial Grade Dedication, and there was no mechanism that allowed us to identify which items required Commercial Grade Dedication without examining all the files related to the procurement. Due to the way that the information is maintained by LANL, with no designation as to whether Commercial Grade Dedication is required, we could not perform this audit in an efficient manner.

BACKGROUND

The Department of Energy is responsible for the construction and operation of nuclear facilities across its complex. To ensure these facilities operate safely, the Department and the contractor managing and operating LANL are required by 10 Code of Federal Regulations 830 and by Department Order 414.1D, *Quality Assurance*, to develop and implement a quality assurance program. The LANL quality assurance program requires nuclear facilities operate in accordance with the NQA-1 Standard. LANL maintains an Institutional Evaluated Supplier List (IESL) that specifies which suppliers have been evaluated and have met the requirements of the NQA-1 Standard. When LANL needs to procure a structure, system, or component that serves a safety function for a high-hazard nuclear facility, LANL policies, P840-1, *Quality Assurance for*

Procurements, and AP-341-703, *Commercial Grade Dedication*, require that LANL either procure it from a qualified supplier on the IESL or ensure that it receives Commercial Grade Dedication.

Commercial Grade Dedication is the process by which LANL obtains reasonable assurance that an item procured from a commercial vendor meets the critical characteristics for the item to serve its safety function. The process requires a responsible engineer to identify which characteristics are critical to an item's intended safety function and to develop an acceptance plan to evaluate whether an item can reasonably be expected to perform as intended. The requirements in this process allow LANL to attest to the quality of items from companies that are not on the IESL. LANL policy, AP-341-703, states that Commercial Grade Dedication can be performed by LANL personnel, by qualified subcontractors procuring items from lower-tier subcontractors, or by third-party vendors. Subcontractors performing Commercial Grade Dedication must be on the IESL and approved to perform Commercial Grade Dedication to appropriate standards.

We initiated this audit to determine whether LANL had ensured that subcontractor-performed Commercial Grade Dedication fully identified and evaluated critical characteristics in accordance with the NQA-1 Standard.

RESULTS OF AUDIT

We could not determine whether LANL ensured that subcontractor-performed Commercial Grade Dedication fully identified and evaluated critical characteristics in accordance with the NQA-1 Standard. We could not determine this because LANL could not provide us with a list of Commercial Grade Dedication procurements. While LANL officials stated that they would review files and provide us with Commercial Grade Dedication procurements, they were unable to deliver this information by December 2019, or 5 months after our initial request. Instead, LANL could provide a list of all procurements that performed a safety function but could not provide a list of procurements that were Commercial Grade Dedication. We selected a sample of 30 items to perform testing but found that only 3 of the procurements potentially required Commercial Grade Dedication. The universe consisted of over 700 procurements, but it was unreasonable to continue selecting items for review with no mechanism for determining which procurements required Commercial Grade Dedication.

This occurred because LANL procedures were insufficient to clearly identify the contract files related to Commercial Grade Dedication and how the Commercial Grade Dedication was completed. Although there is no specific requirement for them to maintain the information this way, this lack of documentation on Commercial Grade Dedication procurements contrasts with established principles of transparency and accountability allowing for appropriate internal oversight as well as oversight from external entities such as the Office of Inspector General (OIG) and Government Accountability Office. Other sites across the Department maintain information that allows for transparency and accountability; therefore, we made a recommendation to improve data availability for LANL Commercial Grade Dedication.

Insufficient Records Prevent Us from Answering Our Objective

We could not determine whether LANL ensured that subcontractor-performed Commercial Grade Dedication fully identified and evaluated critical characteristics in accordance with the NQA-1 Standard because LANL was unable to identify or list all Commercial Grade Dedication items procured by LANL. The LANL policy, AP-341-703, governs dedicating commercial grade items or services with safety functions for high-hazard nuclear facilities. Per this policy, LANL must either procure the items with a safety function from a qualified supplier on the IESL or ensure that the item receives Commercial Grade Dedication. To determine whether LANL was in compliance with this policy, in July 2019 we requested a list of Commercial Grade Dedication procurements from LANL's Quality and Performance Assurance and Engineering organizations to select a sample for testing. Despite repeated and varied attempts to obtain this information, LANL was unable to provide a list of procurements requiring Commercial Grade Dedication by December 2019, or 5 months after our initial request.

Cause and Impact of Inadequate Records

LANL was unable to provide a list of subcontractor-performed Commercial Grade Dedication. Specifically, LANL could provide a list of all procurements that performed a safety function but could not provide a list of procurements that were Commercial Grade Dedication. This occurred because LANL procedures were insufficient to clearly identify the contract files related to subcontractor-performed Commercial Grade Dedication. Department Order 226.1B, *Implementation of Department of Energy Oversight Policy*, requires that contractor assurance system data be documented and readily available to the Department. This order mandates timely communication, continuous feedback, and readily available access to relevant records for quality assurance work performed at, and on behalf of, LANL. Likewise, 10 Code of Federal Regulations 830 and Department Order 414.1D, *Quality Assurance*, provides quality assurance criteria for contractors, including the requirement to specify, prepare, review, approve, and maintain records. LANL implements these requirements with a Quality Assurance Plan which requires that quality assurance records are maintained and organized for identifying records. Despite these requirements, LANL officials told us that LANL procedures did not require LANL to maintain documentation of subcontractor-performed Commercial Grade Dedications. Instead, LANL officials stated that they relied on the initial and periodic re-evaluation of subcontractors providing Commercial Grade Dedication on the IESL to ensure procurements met the NQA-1 Standard requirements. However, the current process does not allow for internal and external oversight entities to come in after the fact and ensure that Commercial Grade Dedication fully identified and evaluated critical characteristics in accordance with the NQA-1 Standard.

According to the Government Accountability Office, management officials of Government programs are responsible for providing reliable, useful, and timely information for transparency and accountability of these programs and their operations. Legislators, oversight bodies, those charged with governance, and the public need to know whether (1) management and officials manage Government resources and use their authority properly and in compliance with laws and regulations; (2) Government programs are achieving their objectives and desired outcomes; and (3) Government services are provided effectively, efficiently, economically, and ethically. In addition, Office of Management and Budget Circular A-123 provides guidance to Federal

managers on improving the accountability and effectiveness of Federal programs and operations by establishing, assessing, correcting, and reporting on internal controls. Further, the Government Accountability Office states in its Standards for Internal Control in the Federal Government, which is referenced in Office of Management and Budget Circular A-123, that documentation provides a means to retain organizational knowledge and mitigate the risk of having that knowledge limited to a few personnel, as well as a means to communicate that knowledge as needed to external parties, such as external auditors. The Inspector General Act of 1978 makes the OIG one of these external auditors. Specifically, the Inspector General Act of 1978 requires that each OIG conduct audits of the program and operations of the Department it oversees in order to keep the head of the Department and the Congress fully and currently informed about problems and deficiencies related to the administration of its programs and operations. LANL's inability to identify subcontractor-provided Commercial Grade Dedication contrasts with these principles of transparency and accountability.

RECOMMENDATION

To improve LANL Commercial Grade Dedication, we recommend that the Acting Manager, Los Alamos Field Office direct LANL to:

1. Implement a process to identify Commercial Grade Dedication procurement records to allow for routine internal and external oversight.

MANAGEMENT RESPONSE

While management did not explicitly indicate whether it concurred with the report's recommendation, based on management's response, we are considering management's response as a concurrence. In addition, the National Nuclear Security Administration (NNSA) claimed that the report lacked clarity when using the term "Commercial Grade Dedication" since the scope of the review focused only on "subcontractor-performed Commercial Grade Dedication services;" NNSA asserted that these services were uncommon at LANL and represented a very small number of its Commercial Grade Dedication items. Further, NNSA claimed that LANL identified and provided a total of three subcontractor-performed Commercial Grade Dedication items to the audit team and were told that the auditors' review of these three packages validated critical characteristics were fully identified and evaluated in accordance with the NQA-1 Standard.

Management comments are included in Attachment 3.

AUDITOR COMMENTS

The corrective actions identified in the first paragraph of management's comments (see Attachment 3) address, and should correct, the issues identified in the report. Therefore, even though management never states that it concurs with the recommendation, we are considering this response as a concurrence and will be tracking implementation. Specifically, LANL is planning the transition to a new procurement database that it claims will increase the availability

of records, including information related to subcontractor-performed Commercial Grade Dedication. The tracking capability of the new database is expected to be fully functional by June 30, 2022. This proposed action is generally responsive to our recommendation.

In addition, we do not consider that the report lacked clarity as asserted by NNSA. Specifically, the Results in Brief, Objective, and Results of Audit sections of the report all clearly state “subcontractor-performed Commercial Grade Dedication.” However, out of an abundance of caution, we updated the title to include the qualifier “subcontractor-performed.”

Further, while NNSA asserted that subcontractor-performed Commercial Grade Dedication represented a very small number of its Commercial Grade Dedication items, it did not provide evidence supporting this assertion. Specifically, as stated in the report, LANL could not provide a list of Commercial Grade Dedication procurements 5 months after our initial request. Without a list of Commercial Grade Dedication procurements, it is impossible for either NNSA or OIG to validate the magnitude of subcontractor-performed Commercial Grade Dedications at LANL.

Finally, NNSA’s statement that LANL identified and provided three subcontractor-performed Commercial Grade Dedication items to the audit team is misleading. Specifically, as stated in the report and noted earlier, LANL could not provide a list of Commercial Grade Dedication items for 5 months after the initial request. Instead, as noted on page 2, LANL provided a list of all procurements that performed a safety function. From this list, the OIG, and not LANL, identified that only three of the procurements in our sample required Commercial Grade Dedication. Further, as noted on page 2, we were unable to determine whether our sample was representative of the universe of Commercial Grade Dedication procurements; therefore, we did not determine whether the three procurements’ critical characteristics were fully identified and evaluated in accordance with the NQA-1 Standard.

Attachments

cc: Deputy Secretary
Chief of Staff

OBJECTIVE, SCOPE, AND METHODOLOGY

OBJECTIVE

We initiated this audit to determine whether Los Alamos National Laboratory (LANL) had ensured that subcontractor-performed Commercial Grade Dedication fully identified and evaluated critical characteristics in accordance with the NQA-1 Standard.

SCOPE

We conducted this audit from July 2019 through September 2020 at LANL in Los Alamos, New Mexico. We focused on dedications performed from fiscal year 2016 through fiscal year 2018. This audit was conducted under Office of Inspector General project number A19LA030.

METHODOLOGY

To accomplish our audit objective, we:

- Reviewed applicable policies, procedures, laws, and regulations pertaining to Commercial Grade Dedication.
- Reviewed reports issued by the Office of Inspector General, as well as internal LANL reports issued by the Institutional Quality and Performance Assurance Division.
- Interviewed key personnel from the National Nuclear Security Administration's Los Alamos Field Office, including Acquisition and Project Management, and contractor personnel from LANL.
- Identified information systems used to store and track documents related to Commercial Grade Dedication, including the Electronic Document Management System and Oracle, and obtained and reviewed documents from these systems.
- Selected and reviewed a judgmental sample of procurements of structures, systems, and components with a safety function through a random number generator to identify a sample of Commercial Grade Dedication items for detailed testing since LANL was unable to provide us with a list of Commercial Grade Dedication procurements. However, this did not result in a usable sample on which to draw a conclusion.
- Reviewed and tested the usage and maintenance of the Institutional Evaluated Supplier List.

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 reviewed information systems, including the Electronic Document Management System and Oracle, and determined that the data contained in those

information systems was insufficiently complete to allow us to answer our audit objective. Accordingly, we corroborated evidence with additional interviews and document reviews. We believe that the evidence obtained provides a reasonable basis for the findings and conclusions stated in our report, and we have made recommendations to improve the availability and reliability of data in the future. Additionally, we assessed significant internal controls and compliance with laws and regulations necessary to satisfy the audit objective. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of this audit. We conducted a reliability assessment of computer-processed data relevant to our audit objective by comparing the data to source documents, other data, or the results of interviews. During our data reliability testing, there was insufficient data available for us to determine an audit universe. Because there was insufficient data available to fully answer our audit objective, we made a recommendation to improve the data available for oversight.

Management waived the exit conference on June 11, 2021.

PRIOR REPORT

Audit Report on [Department of Energy's Quality Assurance: Commercial Grade Dedication of Items Relied on for Safety](#) (DOE-OIG-19-30, May 2019). The Department of Energy and its contractors had experienced difficulty finding suppliers that were qualified according to the NQA-1 Standard, which required the Department to increasingly depend on Commercial Grade Dedication. Our review identified weaknesses in the implementation of Commercial Grade Dedication procurements at the Department's Waste Treatment and Immobilization Plant and Salt Waste Processing Facility projects. Specifically, our review identified weaknesses in the dedication acceptance process performed in accordance with the NQA-1 Standard and the Department's guidance. We concluded that the issues identified with implementation of Commercial Grade Dedication at these two projects resulted from weaknesses in the Department's oversight for ensuring that contractors followed NQA-1 standards. In particular, the Department did not ensure consistent oversight across its complex. Additionally, we identified that the contractors did not effectively implement contractor quality assurance programs. While our findings are specific to the Waste Treatment and Immobilization Plant and Salt Waste Processing Facility projects, insufficient oversight may be a problem at other Department sites. In a prior Office of Inspector General report, DOE-OIG-17-07, *Quality Assurance Management at the Waste Isolation Pilot Plant*, we identified similar weaknesses in the implementation of the Department's Commercial Grade Dedication at the Waste Isolation Pilot Plant. Also, we issued multiple reports identifying weaknesses in quality assurance at a number of projects within the complex. Weaknesses in the Department's Commercial Grade Dedication program limit its ability to provide reasonable assurance that items and services meet the requirements for safe operation. Specifically, this could lead to subcontractors supplying parts and services that do not meet regulatory requirements or quality assurance expectations. Therefore, an ineffective Commercial Grade Dedication program can impact the safety of the facility, the worker, and the public, as well as result in additional costs to resolve issues or concerns.

MANAGEMENT COMMENTS



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



April 26, 2021

MEMORANDUM FOR TERI L. DONALDSON
 INSPECTOR GENERAL

FROM: CHARLES P. VERDON *Charles P. Verdon*
 ACTING UNDER SECRETARY FOR NUCLEAR SECURITY
 AND ADMINISTRATOR, NNSA

SUBJECT: Response to the Office of Inspector General Draft Report *Commercial Grade Dedication at Los Alamos National Laboratory* (A19LA030)

Thank you for the opportunity to review and comment on the subject draft report. We appreciate the auditors' efforts, which highlight the benefits of using electronic systems to enhance transparency and facilitate more efficient oversight and reporting. Los Alamos National Laboratory (LANL) is planning the transition to a new procurement database that will increase the availability of more granular data and records, including information related to subcontractor-provided Commercial Grade Dedication (CGD) activities that were the subject of this audit. Implementation of the new database will commence in May 2021, and this tracking capability is expected to be fully functional by June 30, 2022. These actions will address the auditors' recommendation going forward.

We would like to clarify that the use of the term "Commercial Grade Dedication" in the title and throughout the report is inaccurate in relation to the scope of the audit work performed, which narrowly focused on "subcontractor-provided CGD services." This is a critical distinction as these types of procurements are not common at LANL and represent a very small number of their CGD items. LANL identified and provided a total of three subcontractor-provided Commercial Grade Dedication items to the audit team. We were told the auditors' review of the three packages validated that critical characteristics were fully identified and evaluated in accordance with the American Society of Mechanical Engineers' *Quality Assurance Requirements for Nuclear Facility Applications* (NQA-1 Standard). While the limited number of packages prevented the auditors from drawing a conclusion on their audit objective, we are pleased with the positive results of the actions reviewed. We would, however, request the terminology be corrected throughout the report.

Our subject matter experts have provided technical comments under separate cover to address the issues noted above. 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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