



**OFFICE OF INSPECTOR GENERAL**

U.S. Department of Energy

# AUDIT REPORT

DOE-OIG-23-19

April 2023

**THE NATIONAL NUCLEAR SECURITY  
ADMINISTRATION'S MOLYBDENUM-99  
COOPERATIVE AGREEMENTS WITH  
COMMERCIAL COMPANIES**



**Department of Energy**  
Washington, DC 20585

April 24, 2023

**MEMORANDUM FOR THE ADMINSTRATOR, NATIONAL NUCLEAR SECURITY  
ADMINSTRATION**

**SUBJECT: Audit Report on The National Nuclear Security Administration's Molybdenum-99  
Cooperative Agreements with Commercial Companies**

The attached report discusses our audit of the National Nuclear Security Administration's Molybdenum-99 cooperative agreements with commercial companies. This report contains three recommendations that, if fully implemented, should help ensure that the administration of cooperative agreements complies with applicable regulations and policies. Management fully concurred or concurred in principle with our recommendations.

We conducted this audit from April 2021 through April 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 that reads "Earl Omer".

Earl Omer  
Assistant Inspector General  
for Audits  
Office of Inspector General

cc: Deputy Secretary  
Chief of Staff



## Department of Energy Office of Inspector General

### The National Nuclear Security Administration's Molybdenum-99 Cooperative Agreements with Commercial Companies (DOE-OIG-23-19)

#### WHY THE OIG PERFORMED THIS REVIEW

The Office of Inspector General has issued several audit reports identifying weaknesses in the Department of Energy's management of financial assistance awards. Specifically, we identified weaknesses in the administration of grants and cooperative agreements, including insufficient monitoring of awards. In July 2019, the National Nuclear Security Administration (NNSA) awarded \$60 million in new cooperative agreements to four commercial companies.

Because of the issues identified in our previous reports and the significant amount of financial assistance awarded by the Department, we initiated this audit to determine if NNSA administered the Molybdenum-99 cooperative agreements with commercial companies in accordance with applicable program requirements.

#### What Did the OIG Find?

We reviewed four cooperative agreements and found that NNSA did not always ensure that compliance audits were performed, as required, when expenditures exceeded \$750,000. Specifically, an awardee with expenditures totaling \$10,258,447.83 did not have an audit completed, as required; therefore, these costs are pending the completion of compliance audits. In addition, we found that NNSA has an opportunity to improve its internal controls related to the invoice approval process by ensuring that alternate personnel assigned to the task understand and follow the established process. We are questioning approximately \$34,313 of costs paid to the awardee due to erroneous charges. Finally, we found that NNSA did not document its risk evaluation of an awardee to include how the results of the pre-award survey factored into the risk evaluation. Apart from these findings, we found that NNSA generally administered the agreements in accordance with applicable requirements.

#### What Is the Impact?

If these findings are not addressed, NNSA may not be reducing the risk that recipients are non-compliant with agreement terms and conditions, as well as reducing the risk of recipients charging unallowable costs.

#### What Is the Path Forward?

To address the issues identified in this report, we have made three recommendations that, if fully implemented, should help ensure that NNSA's administration of cooperative agreements complies with applicable regulations and policies.

## BACKGROUND

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The American Medical Isotopes Production Act of 2012 directs the Department of Energy's National Nuclear Security Administration (NNSA) to establish a technology-neutral program in cooperation with non-Federal organizations. The program's purpose is to produce Molybdenum-99 (Mo-99) without the usage of highly enriched uranium (HEU). In the U.S., the Mo-99 radioisotope is widely used in over 40,000 medical procedures, including the detection of heart disease and cancer. Most Mo-99 in the U.S. is imported from foreign suppliers and has historically been produced using HEU.

NNSA's Mo-99 program objective is to accelerate the establishment of a reliable non-HEU-based Mo-99 production capability in the U.S. sufficient to supply the U.S. Mo-99 demand as soon as possible. The supply should rely on diversified technologies that utilize a variety of facilities to ensure that patients in the U.S. have access to the Mo-99 they need without interruption. To achieve this objective, in 2018, a new *Funding Opportunity Announcement* was issued by NNSA's Office of Material Management and Minimization for Mo-99 production without the use of HEU for a 50-50 percent cost-sharing arrangement between the U.S. Government and each recipient of Federal funding in support of commercial application demonstration projects. Based on NNSA's review of the awardees' technical capacity and ability to adequately fund their cost share to bring their projects to commercial production and become long-term producers in the U.S., it awarded four cooperative agreements.

The Mo-99 awardees were competitively selected under *Funding Opportunity Announcement* DE-FOA-0001925 on February 19, 2019. The awards were cost-share type cooperative agreements for \$30 million (50 percent of NNSA's cost share was limited to \$15 million) for the proposed non-construction scope of work.

As of April 2021, we identified approximately \$33.23 million of total costs incurred for all four awardees, consisting of \$6.2 million in fiscal year (FY) 2019; \$19.9 million in FY 2020; and \$7.1 million paid as of March 2021. Each of the four cooperative agreement's terms and conditions state that all costs, including pre-award costs, must be allowable in accordance with the applicable Federal cost principles referenced in 2 Code of Federal Regulations (CFR) 200, *Uniform Administrative Requirements, Cost Principles, And Audit Requirements for Federal Awards*, and 2 CFR 910, *Uniform Administrative Requirements, Cost Principles, And Audit Requirements for Federal Awards*, as well as 48 CFR 31.2, *Contracts with Commercial Organizations*. We randomly selected 12 out of 64 invoices totaling about \$9.2 million to test the allowability of costs incurred. The 12 invoices consisted of 4 invoices each for 3 awardees. In addition, we selected two invoices (totaling about \$202,000) from one of the awardees since there were only two invoices submitted by this awardee to NNSA for reimbursement. Our total sample selection of \$9.4 million represented 28 percent of the total costs incurred for all cooperative agreements from FY 2019 through FY 2021. The breakdown of costs incurred for each awardee is summarized in Table 1.

**Table 1: Total Costs Incurred Per Awardee and Percentage Reimbursed**

<b>Awardee</b>	<b>Cost-Share Amount of Project Costs</b>	<b>Costs Incurred (Rounded)</b>	<b>Percentage of Costs Reimbursed</b>
Awardee #1	\$15 Million	\$6.03 Million	40.20%
Awardee #2	\$15 Million	\$202,000	1.35%
Awardee #3	\$15 Million	\$14.95 Million	99.66%
Awardee #4	\$15 Million	\$12.05 Million	80.36%
<b>Total Costs Incurred</b>	<b>\$60 Million</b>	<b>\$33.23 Million</b>	

We initiated this audit to determine if NNSA administered the Mo-99 cooperative agreements with commercial companies in accordance with applicable program requirements.

## **ADMINISTRATION OF COOPERATIVE AGREEMENTS**

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We found that NNSA generally administered the four cooperative agreements in accordance with applicable requirements. Our review of invoices from three awardees disclosed no instances of unallowable costs under the cooperative agreements. However, NNSA did not always ensure that compliance audits were always performed, as required. In addition, NNSA reported that one awardee erroneously received provisional reimbursement for identified questioned costs on two invoices. Although NNSA detected the error after the improper payment, there is an opportunity to improve its internal controls related to the invoice approval process by ensuring that alternate personnel assigned to the task understand and follow the established process. Finally, we found that NNSA did not document its risk evaluation of an awardee’s management system to determine if the applicant had the ability to manage the financial aspects of the award.

### **Compliance Audits Not Performed**

We found that NNSA did not always ensure that compliance audits were performed for one of the four awardees with approximately \$10 million of expenditures when the threshold requirement was met for a compliance audit. 2 CFR 910.501, *Audit Requirements*, requires that for-profit entities expending \$750,000 or more during the non-Federal entity’s FY in Department awards must have a compliance audit conducted for that year. Further, 2 CFR 910.514, *Scope of Audit*, requires that the audit must be conducted in accordance with generally accepted government auditing standards and include procedures to ensure that financial statements of the auditee are presented fairly in all material respects; obtain an understanding of internal controls over Department programs; and determine whether the auditee has complied with Federal statutes, regulations, and the terms and conditions of Department awards that may have a direct and material effect.

Even though NNSA received compliance audits from most of the awardees, we found that NNSA did not always ensure compliance audits were completed when one awardee expended more than \$750,000. Specifically, the awardee met the threshold for an audit in FY 2019 after it incurred approximately \$2 million, and then again in FY 2020 when it incurred approximately \$8 million. In these two instances, NNSA did not monitor these costs to determine when the awardee exceeded the threshold that would prompt a compliance audit.

Of the \$26,121,495.23 incurred from FY 2019 through FY 2020, we determined that the total dollar value of expenditures not audited, as required for one awardee, was \$10,258,447.83. The expenditures needing compliance audits are shown in Table 2.

**Table 2: Expenditures Exceeding \$750,000 Requiring Compliance Audit**

Awardee	FY 2019	FY 2020	Total
Awardee #4	\$1,999,724.32	\$8,258,723.51	\$10,258,447.83

This issue occurred because NNSA does not have a policy to monitor and ensure that awardees are complying with audit requirements. 2 CFR 200.508, *Auditee responsibilities*, states that the auditee (i.e., recipient) must, among other things, procure or otherwise arrange for the audit required in accordance with 2 CFR 200.509, *Auditor selection*, and ensure that the audit is properly performed and submitted when due in accordance with 2 CFR 200.512, *Report submission*. Further, 2 CFR 200.513(c), *Federal awarding agency responsibilities*, states that NNSA must ensure that audits are completed and reports for Federal awards are received in a timely manner. When we inquired about the missing compliance audits, NNSA informed us that it relies on the awardees to ensure that compliance audits are completed. Specifically, NNSA does not monitor whether compliance audits are conducted and submitted by the awardees in a timely manner. NNSA informed us that the awardees are responsible for submitting these compliance audits within the earlier of 30 days after the receipt of the auditor’s report(s) or 9 months after the end of the audit period (recipient’s FY-end).

Without the completion of compliance audits, questioned costs can occur, as well as non-compliance with Federal statutes, regulations, and terms and conditions of Department awards, without NNSA’s awareness. As a result, costs totaling \$10,258,447.83 are pending the completion of compliance audits. 2 CFR 910.515, *Audit reporting*, states that compliance audits could contain audit findings that include internal controls, compliance, questioned costs, or fraud.

As a result of our audit findings, NNSA has notified the awardee of its requirement to perform compliance audits. In response, the awardee has provided a timetable for completing the compliance audit covering FY 2019 through FY 2021 and affirmed that it will perform required compliance audits in a timely manner moving forward.

## Invoice Approval Process

We found that NNSA has an opportunity to improve its internal controls related to its invoice approval process by ensuring that alternate personnel assigned to the task are properly trained to follow the established process prior to approving invoices. Specifically, one awardee was provisionally reimbursed for the full amount billed of \$202,080.46, which included approximately \$34,313 of questionable charges. NNSA informed us that it had reviewed the invoices and identified the questioned and overbilled costs. However, the invoices were prematurely approved for payment by an alternate Contracting Officer (CO). Table 3 shows the questioned costs.

**Table 3: List of Questioned Costs**

Invoices	Amount Billed	Questioned Costs	50% NNSA Cost Share
Timesheet Errors (2 Hours Overbilled)		\$183.20	\$91.60
Subcontractor 1	\$35,000.00	\$35,000.00	\$17,500.00
Subcontractor 2	\$33,442.77	\$33,442.77	\$16,721.39
<b>Total Questioned Costs</b>			<b>\$34,312.99</b>

The invoices contained the following issues:

- NNSA reported instances of errors in the awardee’s time reporting system. Specifically, discrepancies were found in two of the project director’s timesheets. In one instance, 27 additional hours were reported; in the second instance, 25 hours were not reported. The issue was further exacerbated by weaknesses in the awardee’s internal controls such as when the project director approved her own timesheets. The timesheet errors resulted in overbilled charges of 2 hours at \$91.60 per hour = \$183.20 (excluding fringe). NNSA’s cost share represents \$91.60.
- Two invoices of questionable charges from an unapproved subcontractor for a total of \$35,000, which should not have been paid, and represented \$17,500 of NNSA’s cost share.
- An invoice with unsupported charges for subcontractor costs for \$33,442.77, which was erroneously paid, and represented \$16,721.39 of NNSA’s cost share.

The invoice with unsupported charges was erroneously paid because an alternate CO did not follow NNSA’s internal invoice approval process and approved the invoice without a thorough invoice review. Specifically, NNSA’s internal invoice approval process requires the Contracting

Officer Representative (COR) to make a recommendation to the CO to either approve the invoice total, decrement a portion of the invoice, or reject the invoice in its entirety, all of which must be properly documented. Although the cognizant COR documented the awardee's billing issues, the alternate CO did not follow the process because he or she did not perform a thorough review of the COR's documentation before the invoice was approved for payment. The alternate CO was detailed temporarily to NNSA's financial assistance team and was unfamiliar with the invoice approval process for financial assistance awards. According to an NNSA official, the alternate CO quickly approved the invoice with an incorrect assumption that late invoices may have interest implications if not approved and paid within 5 days. The error was detected by the COR following payment, and NNSA informed the awardee of the premature approval of the invoice and that the improper costs were to be adjusted against the next invoice. Although NNSA indicated that this improper payment was immaterial, materiality does not have an impact when assessing the effectiveness of controls. Controls either function as designed or, in this instance, did not function as designed.

Further, NNSA's invoice system did not flag an invoice containing billing issues to alert the CO before approving the invoices. Although a recommendation for approval of invoice payments was made by the COR, the authority to approve or disapprove invoice payments was the CO's responsibility. The CO's approval should have been based on a thorough review of supporting documentation obtained from the COR's review of the invoice. In this instance, the alternate CO did not coordinate with the cognizant COR, which resulted in approximately \$34,313 of questioned costs improperly paid to the awardee. Although NNSA informed the awardee of the improper payment and that the costs were to be adjusted against the next invoice, in June 2021, NNSA terminated the agreement after the awardee could not secure funding for its cost share, which ultimately affected the completion of its milestones. NNSA informed us that the questioned costs will be adjusted as part of the final closeout. NNSA also informed us that it is exercising its right to perform a final incurred cost review of the terminated award to this awardee. Until the final incurred cost review is completed, we are questioning approximately \$34,313 of costs that need to be recovered.

### **Documentation of Risk Evaluation**

Although NNSA conducted a pre-award survey or financial assistance budget review of the awardees in accordance with the Department's Guide to Financial Assistance (Guide), we noted that NNSA did not document its risk evaluation of one awardee in the award file to include how the results of the pre-award survey factored into the risk evaluation. 2 CFR 200.206, *Federal awarding agency review of risk posed by applicants*, requires that the Federal awarding agency (i.e., NNSA) have a framework for evaluating the risk posed by applicants before they receive Federal awards. The Guide, Section 2.5.4, *High Risk Recipients*, contains a list of factors that indicate that a recipient may be high risk, including inexperience such as may occur in newly formed organizations or in those which have not previously received Federal financial assistance awards similar to this particular awardee. The Guide goes on to list special award conditions that grant officers should consider incorporating into an award if an organization exhibits one of the identified risk factors.

NNSA stated that it considered all four awardees as high-risk recipients based on the deployment of first-of-a-kind technologies; therefore, NNSA incorporated the recommended high-risk procedures into all four of the cooperative agreement awards. However, one awardee demonstrated unique risk factors that were not observed in the other three awardees. For example, one awardee was a first-time recipient of Department funds, a newly created organization, and it did not have an operational accounting system. While NNSA considered this and implemented appropriate steps to mitigate these risks, such as monthly meetings with the awardee, using a robust invoice review process to counter any concern of increased risk and disbursing funding through reimbursement of approved invoices rather than providing funding up-front, there was not a formal designation of high-risk documented in the award file.

According to the Guide, under pre-award Section 2.1.6, *Project Management*, it states that as part of the Department's stewardship responsibilities for its financial assistance awards, contracting officers and program officials must consider program and project management. It further states that while Department of Energy Order (Department Order) 413.3, *Program and Project Management for Acquisition of Capital Assets*,<sup>1</sup> does not apply to financial assistance, the basic principles outlined in the order can be applied. These principles include project performance risks (e.g., technical, financial, and otherwise) identified and mitigated in the implementation strategy. Department Order 413.3B states that risk management is an essential element of every project and must be analytical, forward looking, structured, and continuous. In addition, it states that the risk assessments are started as early in the project life-cycle as possible and should identify critical technical, performance, schedule, and cost risks. Once risks are identified and prioritized, sound risk mitigation strategies and actions are developed and documented in the Risk Register.

While NNSA managed the awardee's particular issues as they emerged, a documented formal designation for all high-risk awardees would help ensure all stakeholders, including the recipient, have heightened awareness of potential problems or concerns. Without a documented high-risk designation in the award file, historical perspective of recipient risk mitigation could be unclear. Since NNSA does not have a policy for formally documenting high-risk recipients and any special award conditions, we intend to notify the Department's Office of Acquisition Management that it would be beneficial to improve award file documentation standards.

## **IMPROVEMENTS NEEDED IN ADMINISTERING COOPERATIVE AGREEMENTS**

Without the completion of compliance audits, questioned costs can occur, as well as noncompliance with Federal statutes, regulations, and terms and conditions of Department awards, without NNSA's awareness. In addition, noncompliance with NNSA's established invoice review process can increase the risk of incurring unallowable costs. Finally, by not documenting its risk assessment and identifying high-risk recipients, not all risks may be identified and mitigated before a cooperative agreement is awarded. Had NNSA formally designated the awardee as a high-risk recipient based on its non-operational accounting system,

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<sup>1</sup> Department Order 413.3, *Program and Project Management for Acquisition of Capital Assets*, has been revised. The current version is Department Order 413.3B, Change 6; however, the Guide has not been updated to reflect the change.

as well as being a first-time recipient of Federal funds, additional guidance could have been provided, ensuring the awardee could manage Federal funds.

## **RECOMMENDATIONS**

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We recommend that the Administrator, NNSA, direct the Associate Administrator for Partnership and Acquisition Services to strengthen its oversight role and ensure effective administration of cooperative agreements by:

1. Establishing a formal process to monitor and track expenditures when awardees' expenditures exceed the \$750,000 threshold to identify when compliance audits are needed. The audits, past due and future, are also performed as required.
2. Ensuring the invoice approval process is properly followed by appropriate personnel.
3. Determining the allowability of approximately \$34,313 overcharges identified in this report.

In addition, please be advised that the Office of Inspector General will notify the Department's Office of Acquisition Management that it would be beneficial to develop and implement recipient award file documentation standards for risk assessments and mitigation activities for future financial assistance awards.

## **MANAGEMENT RESPONSE**

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Management fully concurred with Recommendation 1 and Recommendation 3 and identified responsive corrective actions to address the associated report issues. Management concurred in principle with Recommendation 2.

Regarding Recommendation 2, management clarified that the erroneous payment discussed in our report was isolated to a single premature invoice approval by an inexperienced Grants Officer due to a Department process which improperly assigns a past due flag to financial assistance invoices before they are due. While there are no systemic payment errors, management agrees that it is important to ensure all personnel performing these tasks, including back-up personnel, are aware of the payment flag issues and understand the importance of consulting with the COR prior to approval. The payment system was updated in August 2021, and management also developed a guide for the invoice approval process on these awards and will provide it to new or detailed Grants Officers.

Management's comments are included in Appendix 3.

## **AUDITOR COMMENTS**

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Management's responses were generally responsive to our recommendations, and we agree with the planned actions to be taken.

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

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### **OBJECTIVE**

We initiated this audit to determine if the National Nuclear Security Administration (NNSA) administered the Molybdenum-99 cooperative agreements with commercial companies in accordance with applicable program requirements.

### **SCOPE**

The audit was performed from April 2021 through April 2022 at NNSA in Washington, DC, and its field site in Albuquerque, New Mexico. The scope of our audit covers the four cooperative agreements awarded by NNSA in fiscal year (FY) 2019. All information was obtained via remote access techniques. The audit was conducted under Office of Inspector General project number A21LL008.

### **METHODOLOGY**

To accomplish our audit objective, we:

- Reviewed applicable Federal laws and regulations, Department of Energy regulations and guidance, and NNSA policies and procedures related to the administration of cooperative agreements from FY 2019 through FY 2021.
- Selected all cooperative agreement awardees to determine if they complied with Federal regulations, policies, procedures, and program requirements.
- Reviewed invoice processing and approval procedures for awardee payments.
- Interviewed NNSA employees to understand the administration of cooperative agreements.
- Judgmentally selected and examined a sample of 14 out of 66 invoices for all 4 cooperative agreements from FY 2019 through March 2021. We reviewed the selected invoices to determine whether awardee costs claimed were allowable, allocable, and reasonable. Since the selection was based on a judgmental or nonstatistical sample, results and overall conclusions were limited to the items tested and could not be projected to the entire population or universe of costs. During our review, we examined the selected invoices and procurement files for each cooperative agreement for allowability requirements, such as appropriate labor billing rates, unallowable costs, and supporting documentation. Because the risks were not the same across the sampling universe, the results and overall conclusions were not projected to the entire population.

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 that the evidence obtained provides a reasonable basis for our findings and conclusions. We assessed internal controls and compliance with laws and

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

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regulations necessary to satisfy the audit objective. In particular, we assessed the internal control components and underlying principles significant to the audit objective. Specifically, we assessed the monitoring component and underlying principle of performing monitoring activities. We also assessed the risk assessment component and the underlying principle of assessing fraud risk. Finally, we also assessed control activities and the underlying principle of implementing policies and procedures. 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 assessed the reliability of procurement data by: (1) performing electronic testing; (2) reviewing existing information about the data and the system that produced them; and (3) interviewing agency officials knowledgeable about the data. We determined that the data was sufficiently reliable for the purposes of this report.

Management waived an exit conference on April 13, 2023.

## Appendix 2: Prior Reports

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- Audit Report on [\*The Global Threat Reduction Initiative's Molybdenum-99 Program\*](#) (OAS-L-12-07, July 2012). This audit found that progress has been made in developing a reliable domestic production capability for Molybdenum-99. While there are significant challenges to establishing a reliable domestic production capability for Molybdenum-99, the National Nuclear Security Administration is aware of the challenges and is considering how best to address them. The report found that one of the four cooperative agreement partners has indefinitely suspended program operations after determining that its process was not financially competitive. Also, a second partner was not projected to meet the production capacity goal until 2018—more than 3 years after the National Nuclear Security Administration's programmatic goal of 2014. In addition, the audit found that in some cases, the partners requested reimbursement for unallowable costs or excluded activities as defined by the respective agreements. However, in each case, the Federal Project Officer appropriately identified and denied these requests.
- Audit Report on [\*The Office of Fossil Energy's Regional Carbon Sequestration Partnerships Initiative\*](#) (OAI-M-16-03, December 2015). This audit found that the Department of Energy had not always effectively managed the Regional Carbon Sequestration Partnerships Initiative's financial assistance awards. For example, our testing revealed that one of two partnerships we reviewed, managed through a cooperative agreement with the University of Illinois, had been reimbursed or allowed to claim cost share for approximately \$5.1 million in unsupported and questionable project costs incurred by one of the subrecipients. Specifically, the Department reimbursed the University of Illinois approximately \$3.8 million in costs that were unsupported, accepted \$1.2 million in claimed cost sharing that was similarly unsupported, and reimbursed the University of Illinois for at least \$48,000 in costs that were questioned and/or specifically unallowable under Federal regulations or the terms of the financial assistance agreement.
- Audit Report on [\*The Department of Energy's Small Modular Reactor Licensing Technical Support Program\*](#) (OAI-M-16-11, May 2016). This audit found questioned costs of approximately \$483,675 for improper costs and associated reimbursements that occurred because the Department invoice review process was insufficient. We identified problems with costs claimed by the Department's two award recipients. Specifically, we determined that in certain instances, the Department reimbursed its award recipients for unallowable costs, including rent payments, relocation, travel, and labor costs totaling \$483,675. Under the two agreements, recipients were reimbursed for costs incurred and were required to comply with Federal Acquisition Regulation 31, *Contract Cost Principles and Procedures*. These costs are subject to the cost-share percentages outlined in the cooperative agreements for each recipient and, when applied, may reduce the Department's share accordingly. While the Department does not have a specific policy for reviewing financial assistance award invoices, it elected to follow its *Acquisition Guide for Reviewing and Approving Contract Invoices*. However, the Department's review did not discover the questionable costs we identified and was vulnerable to improper payments. Management pointed out that these awards are subject to final cost audits that had not yet taken place but might identify the improper costs we found. It should also be noted that during our review, after we identified questionable costs, management quickly took action to correct some of these costs.

## Appendix 2: Prior Reports

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- Audit Report on [\*Followup on the Geothermal Technologies Office\*](#) (OAI-M-17-01, October 2016). This audit found that the Geothermal Technologies Office (Geothermal) had not always obtained deliverables required of recipients in financial assistance award terms and conditions. In particular, three of the four recipients included in our review had not submitted either a final report or technical data in accordance with the terms and conditions of their awards. These issues occurred because Geothermal had not always managed the receipt of its recipients' deliverables. Specifically, Geothermal had not always implemented existing procedures that had been put in place to ensure final deliverables were submitted by awardees. Additionally, Geothermal lacked formal policies and procedures detailing the types of data to be submitted into the Geothermal Data Repository. By not ensuring the receipt and sharing of technical information from final deliverables and ongoing research data submissions, the Department cannot demonstrate performance has been achieved as expected, or if progress is being made in meeting Geothermal's objectives and goals of accelerating the deployment of clean domestic geothermal energy.

## Appendix 3: Management Comments

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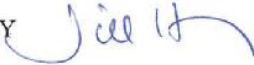


**Department of Energy**  
**Under Secretary for Nuclear Security**  
**Administrator, National Nuclear Security Administration**  
**Washington, DC 20585**



April 7, 2023

MEMORANDUM FOR TERI L. DONALDSON  
INSPECTOR GENERAL  
OFFICE OF THE INSPECTOR GENERAL

FROM: JILL HRUBY 

SUBJECT: Response to the Office of Inspector General Draft Report, *The National Nuclear Security Administration's Molybdenum-99 Cooperative Agreements with Commercial Entities (A21LL008)*

Thank you for the opportunity to review and comment on the subject draft report. As directed by Congress, the National Nuclear Security Administration (NNSA) has partnered with U.S. industry to support the establishment of a domestic capability to produce molybdenum-99 (Mo-99) without the use of proliferation-sensitive highly enriched uranium. This vital medical isotope is used in over 40,000 procedures in the United States each day, including the diagnosis of heart disease and cancer. NNSA collaboration with industry through cost-shared cooperative agreements has produced historic results, and the program is on track to achieve significant increases in domestic Mo-99 production by the end of 2023.

NNSA is pleased that the OIG audit confirmed that these cooperative agreements were generally administered in accordance with applicable requirements. The attached management decision provides detailed responses to the OIG recommendations. NNSA will also consider the auditors' suggested action to further document risk determinations. If you have any questions regarding this response, please contact Mr. Dean Childs, Director, Audits and Internal Affairs, at (202) 836-3327.

Attachment

**NATIONAL NUCLEAR SECURITY ADMINISTRATION**  
**Management Decision**

*The National Nuclear Security Administration's Molybdenum-99 Cooperative Agreements with Commercial Entities (A21LV008)*

The Office of Inspector General (OIG) recommended that NNSA:

**Recommendation 1:** Establish a formal process to monitor and track expenditures when awardees' expenditures exceed the \$750,000 threshold to identify when compliance audits are needed and that the audits, past due and future, are performed as required.

**Management Response:** Concur.

Since the OIG review, compliance audits for fiscal year (FY) 2019 through FY 2021 have been completed, and the recipient has affirmed that it will ensure required audits are conducted in a timely manner going forward. The NNSA Office of Partnership and Acquisition Services (PAS) has started issuing reminder letters requesting compliance audits from any recipient exceeding the \$750,000 threshold on a quarterly basis.

Additionally, PAS has created a database to track compliance audits to ensure they are performed consistent with applicable requirements. Going forward, PAS will establish procedures to ensure: 1) new financial assistance awards are entered into the database; 2) the Pricing Branch is notified when recipients exceed \$750,000 in NNSA expenditures; and 3) all Federal awards are considered when determining whether a recipient has exceeded the \$750,000 threshold. These actions are expected to be completed by June 30, 2023.

**Recommendation 2:** Ensure the invoice approval process is properly followed by appropriate personnel.

**Management Response:** Concur in principle.

NNSA would like to clarify that the erroneous payment discussed in the OIG report was isolated to a single premature invoice approval by an inexperienced grants officer due to a Departmental system process that improperly assigns a past due flag to financial assistance invoices before they are due. The error was immediately detected by the program Contracting Officer Representative (COR), and NNSA informed the awardee that costs for the provisional reimbursement were to be adjusted against the next invoice. Contrary to the OIG conclusion, we believe that the immediate detection and initiation of remediation for the error, combined with the OIG testing of other invoices that found no instances of questioned costs, represents a strong system of controls over costs incurred on these awards.

While there are no systemic payment errors, NNSA agrees that it is important to ensure all personnel performing these tasks, including back-up personnel, are aware of the payment flag

## Appendix 3: Management Comments

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issue and understand the importance of consulting with the COR prior to approval. The payment system was updated in August 2021 to include a note highlighting the circumstances where an inaccurate past due flag may be applied. Additionally, NNSA developed a guide for the invoice approval process on these awards and will provide it to new or detailed grants officers. NNSA considers this recommendation closed.

**Recommendation 3:** Determining the allowability of approximately \$34,313 overcharges by Northwest.

**Management Response:** Concur.

NNSA self-identified the premature payment and potential overbillings that resulted in the questioned costs and initiated remediation actions. NNSA has completed a final incurred cost review and determined that the costs were unallowable. NNSA considers this recommendation closed.

*Management Response on Monetary Impacts:*

Amount	Concur	Non-Concur	Identified By			Comment
			NNSA	M&O	OIG	
\$34,313	X		X			These costs were provisionally reimbursed in error. NNSA immediately self-identified the premature payment and potential overbilling, and initiated remediation actions.

## FEEDBACK

The Office of Inspector General has a continuing interest in improving the usefulness of its products. We aim to make our reports as responsive as possible and ask you to consider sharing your thoughts with us.

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