**U.S. Department of Energy**

**Office of Inspector General**

**Office of Audits and Inspections**

# AUDIT REPORT

## The Department of Energy's Small Modular Reactor Licensing Technical Support Program

OAI-M-16-11

May 2016

**Department of Energy**
Washington, DC 20585

May 25, 2016

MEMORANDUM FOR THE MANAGER, IDAHO OPERATIONS OFFICE

FROM: David Sedillo
Deputy Assistant Inspector General
for Audits and Inspections
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on "The Department of Energy's Small Modular Reactor Licensing Technical Support Program"

## BACKGROUND

Commercializing and deploying small modular reactors (SMR) has been a high priority of the Department of Energy's Office of Nuclear Energy SMR Licensing Technical Support Program (SMR Program). The mission of the SMR Program is to support design certification and licensing with industry partners to promote commercializing and deploying SMRs. The SMR Program, which began in 2011, has a budget of $452 million from which the Department awarded two major cost-shared cooperative agreements (awards). In November 2012, the Department selected the Babcock & Wilcox mPower, Inc. (mPower) team for the first award and committed $150 million. In December 2013, the Department selected NuScale Power, LLC (NuScale) for a second award and committed $217 million. The primary purpose of these awards was to achieve design certification by the Nuclear Regulatory Commission.

In recent years, the Office of Inspector General has issued a number of reports that have identified weaknesses in the Department's management of financial assistance awards. For example, our report on the *Follow-up Audit of the Department of Energy's Financial Assistance for Integrated Biorefinery Projects* (DOE/IG-0893, September 2013), found that despite years of effort and the expenditure of over $600 million, financial assistance awards for integrated biorefinery projects were not achieving program goals. Because of the cost and significance of the SMR Program, we initiated this audit to determine whether the program was being managed effectively and efficiently.

## RESULTS OF AUDIT

Nothing material came to our attention to indicate that the SMR Program was not being managed effectively and efficiently. We did, however, identify questioned costs of approximately $483,675 for both MPower and NuScale that included:

- Rental expense for a portion of a facility that was not used for Department funded work and had been sublet to an unrelated party;

- Relocation expenses for employees who subsequently terminated their employment, and for lump sum payments that exceeded Federal Acquisition Regulation allowances;

- Real estate expenses, such as losses on the sales of employees' homes, broker fees, and mortgage principal payments that were expressly unallowable;

- Travel expenses that were questionable or, in some cases, unallowable; and

- Labor costs incurred prior to the agreed upon award date.

Improper costs and associated reimbursements occurred because the Department's invoice review process was not sufficient. 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.

## Questioned Costs

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 the *Federal Acquisition Regulation Part 31 - Contract Cost Principles and Procedures* (FAR Part 31). These costs are subject to the cost-share percentages outlined in the cooperative agreements for each recipient and, once applied, may reduce the Department's share accordingly.

### Rent Expense

We identified $109,272 in questionable rental costs that were billed to the Department for a portion of a facility that was not used for Department funded work and, in fact, had been sublet to an unrelated party. We found that the Department had reimbursed mPower for 5 months of rent for this facility and that mPower had submitted an invoice to the Department that included an additional month's rent that the Department had yet to pay. These charges represented facility costs claimed that were not actually incurred, due to the rental revenue offsetting the cost. Once we brought this issue to mPower's attention, it immediately reduced its invoice to the Department by $109,272 to account for the sublet portion of the facility previously billed to the Department.

## Relocation Costs

We also identified $286,069 in questionable relocation costs from $1,946,992 of reviewed costs that mPower and NuScale billed to the Department. According to FAR Part 31, certain relocation costs are reimbursed for existing and new employees as long as the costs coincide with a permanent change of work location. FAR Part 31 allows for a lump sum payment of up to $5,000 for various miscellaneous moving costs. It stipulates that employees must remain with the company for at least 12 months to receive these benefits. However, we noted the following exceptions:

- Our review of all 41 mPower employees who relocated between award start and November 2014 found 9 instances where mPower paid more than the allowable lump sum payment of $5,000 to its employees, resulting in $89,333 of questioned costs. In addition, mPower invoiced the Department for approximately $3,120 for one employee who received relocation benefits and ended their employment prior to fulfilling the 12 month requirement.

- Our review of all 68 NuScale employees who relocated between award start and January 2015 found 8 instances where NuScale paid more than the allowable lump sum payment of $5,000, resulting in $167,000 of questioned costs. In addition, we identified four employees who received approximately $26,616 in relocation benefits and ended their employment prior to fulfilling the 12 month requirement. These costs were part of NuScale's indirect cost rates, so they were not visible to the Department's invoice reviews.

While the lump sum overpayments were based on established company policies, both recipients were subject to FAR Part 31 and can only be reimbursed up to the $5,000 allowable limit.

In addition to the above costs, we identified $75,369 in questioned costs that appeared to violate unallowable cost regulations. FAR Part 31 does not allow reimbursement for a loss on the sale of an employee's home, broker's fees, or for home mortgage principal payments. We identified two instances where mPower invoiced the Department for a loss on the sale of employees' homes in the amount of $68,000. We also found that mPower invoiced the Department for $4,825 in broker fees for three employees. Furthermore, mPower invoiced the Department for two employee's full mortgage payments in the amount of $2,544. We were unable to determine what portion of the mortgage payments were for principal.

## Travel Costs

In addition, we identified $4,637 in questioned travel costs that mPower billed to the Department. Specifically, the Department reimbursed mPower for travel costs that lacked proper documentation or exceeded allowable limits. According to FAR Part 31, recipients are required to maintain adequate documentation for costs incurred and follow Federal Travel Regulations when incurring costs for lodging, meals, and incidental expenses. From a list of 111 trips invoiced to the Department during 2014, we sampled 24 trips requesting $46,237 in reimbursement and found:

- $3,730 for business meal expenses that lacked the required supporting documentation;
- $404 for costs above lodging per diem and the associated lodging taxes;
- $291 for airline flight change fees and rental car extras; and
- $212 for alcoholic beverages.

Furthermore, NuScale reclassified $6,768 of travel expenses as unallowable as a result of our review of all 113 expense reports, totaling $185,890, from calendar year 2014 for 11 employees. Specifically, NuScale reclassified the following expenses:

- $3,391 for business and travel meals;
- $3,072 for hotel room charges and taxes; and
- $305 for other miscellaneous travel charges.

These costs were also part of NuScale's indirect cost rates and were not visible to the Department's invoice reviews.

### Pre-Award Labor Costs

We also determined that the Department reimbursed NuScale for labor costs incurred prior to the date agreed upon under its award. NuScale received its award from the Department on May 27, 2014. As part of the negotiation process, NuScale requested and was authorized to seek reimbursement for pre-award costs beginning on September 18, 2013. From our review of invoices submitted around that timeframe, we identified 791 labor hours worked prior to the approved pre-award period and subsequently invoiced to the Department. To its credit, all but six of those hours were previously identified by the Department and removed from NuScale's invoice. The cost for the remaining six labor hours that were improperly submitted to the Department totaled $1,560.

## Award Administration

We attributed the issues with the questioned costs our audit identified to Department reviews that were not sufficient. According to the Contracting Officer, there is no formal invoice review policy for financial assistance awards, so the Department elected to use the Department's *Acquisition Guide for Reviewing and Approving Contract Invoices* (Guide), which we consider a prudent step. However, the Department's invoice review did not identify the questioned costs identified in our report. When asked about the questioned costs, the Contracting Officer told us that the invoice review process should have caught the errors but did not. He noted that his limited staff and their high workload likely contributed to the financial management issues we identified. Management also pointed out that this award was subject to a final cost audit that had not yet taken place but might identify the improper costs we found.

RECOMMENDATIONS

Maintaining available controls to reduce financial risk is essential. However, not sufficiently reviewing recipient costs increases the Department's vulnerability to improper payments. While management has already acted on some of the questioned costs we identified, we recommend that the Manager of the Idaho Operations Office work with the Contracting Officer to:

1. Ensure that award recipients' invoices are reviewed in accordance with Department guidance to ensure the allowability of costs claimed by the recipients; and

2. Determine the allowability of questioned costs identified in this report and recover those costs discovered to be unallowable.

MANAGEMENT RESPONSE

Management concurred with the report's findings and recommendations, and provided corrective actions to address the issues identified in the report. To ensure proper reviews are being conducted, the Idaho Operations Office will provide training on cost allowability and invoice reviews in accordance with Department policy. Also, the Contracting Officer will review the questioned costs and will make an official determination regarding reasonableness and allowability. Management's formal comments are included in Attachment 2.

AUDITOR COMMENTS

We consider management's comments and planned corrective actions to be responsive to our findings and recommendations.

Attachment

cc: Deputy Secretary
Chief of Staff

# OBJECTIVE, SCOPE, AND METHODOLOGY

## OBJECTIVE

We initiated this audit to determine whether the Department is effectively and efficiently managing the Small Modular Reactor Licensing Technical Support Program.

## SCOPE

The audit was performed between September 2014 and May 2016 at Department Headquarters in Germantown, Maryland; the Idaho Operations Office in Idaho Falls, Idaho; Babcock & Wilcox mPower, Inc., in Charlotte, North Carolina; and NuScale Power, LLC, in Portland, Oregon. The scope of the audit included a review of the cooperative agreements awarded by the Department and invoices submitted to the Department for reimbursement. The audit was conducted under the Office of Inspector General project number A14ID061.

## METHODOLOGY

To accomplish the audit objective we:

- Reviewed applicable laws, regulations, orders, guidance, policies, and procedures;
- Reviewed related reports issued by the Office of Inspector General;
- Held discussions with Department and recipient personnel;
- Analyzed invoices submitted to the Department for cost reimbursement;
- Reviewed judgmental samples of various award costs to determine whether those costs could be allowable per the award requirements; and
- Analyzed cooperative agreement requirements.

A statistical sample of award costs was not selected due to time constraints. Because the selection was based on a judgmental or non-statistical sample, results and overall conclusions are limited to the items tested and cannot be projected to the entire population or universe of award costs.

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 objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our audit objective. The audit included tests of controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. Additionally, we assessed the implementation of the *GPRA Modernization Act of 2010* and found that the Department had established performance measures to track award recipient progress.

Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit.  Finally, we conducted a limited reliability assessment of computer-processed data relevant to our audit objective and deemed the data to be sufficiently reliable.  Management waived an exit conference.

## MANAGEMENT COMMENTS

**United States Government** **Department of Energy**

# memorandum

Idaho Operations Office

Date: May 3, 2016

Subject: Response to Inspector General's Draft Report, "Department's Small Modular Reactor Licensing and Technical Support Program (AS-IR&A-16-035)

To: Mr. David Sedillo
Deputy Inspector General
for Audits and Inspections
Western Division

Thank you for the opportunity to review and comment on the subject draft report. The Office of Nuclear Energy (NE) is pleased that the Inspector General (IG) found nothing material to indicate that the Small Modular Reactor (SMR) Licensing Technical Support (LTS) Program is not being managed effectively and efficiently.

NE has reviewed the subject draft IG report on the SMR Program and offers the following responses to the report's recommendations as follows:

**Recommendation 1:** Ensure that award recipients' invoices are reviewed in accordance with Department guidance to ensure the allowability of costs claimed by the recipients.

**Management Response:** Concur.

NE and DOE-ID are committed to ensuring a rigorous review of the recipients' invoices is conducted.

**Action Plan**: Rigorous review of recipients' invoices is a priority for NE. To ensure proper reviews are being conducted, the Contract Management Division will provide staff with training on cost allowability and invoice reviews in accordance with the Department's guidance by June 30, 2016.

NE and DOE-ID utilizes at least two or more invoice reviewers (i.e. technical representative and a Contracting Officer or Contracts Specialist). In addition, other mechanisms and processes have been put in place to ensure multiple reviews are conducted. One is the annual A-133 or for-profit audit which is required to be completed by an independent auditor as part of the award terms. This audit provides a reporting of any questioned costs under the award as well as the recipient's compliance with the award's terms and conditions, among other items. Another is a final incurred cost audit. The final incurred cost audits are not completed for every financial assistance agreement. These audits are used when determined necessary by the Contracting Officer for generally large, complex awards, such as the SMR LTS Program awards. For the SMR LTS awards, the final incurred cost audit shall be completed within 1 year of the completion date of the awards' period of performance.

Through these combined efforts, NE and DOE-ID will ensure costs reimbursed under the project are allowable.

**Recommendation 2:** Determine the allowability of questioned costs identified in this report and recover those costs discovered to be unallowable.

**Management Response:** Concur.

**Action Plan:** The Contracting Officer will review the questioned costs and will make an official determination regarding the reasonableness and allowability no later than June 30, 2016.

Based upon this determination, the Contracting Officer will recover the unallowable costs from the recipient and ensure corrective actions are put in place to reduce the risk of these types of costs being claimed for reimbursement in the future. Adjustments to the costs and implementation of corrective actions plans shall be completed by September 1, 2016.

In addition, a final cost allowability determination will be made on the awards after the final cost incurred audit is completed as part of the award closeout process.

If you have questions on these comments, please contact Emily Clemens at (208) 526-1739.

Richard B. Provencher
Manager

cc: Bradley T. Milliron, IG-301.4
Jared R. Williams, IG-301.4
Kelly J. Glanz, NE-21

## FEEDBACK

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