



U.S. Department of Energy  
Office of Inspector General  
Office of Audits and Inspections

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# AUDIT REPORT

Management of the National Nuclear Security  
Administration's Biosafety Laboratories

DOE/IG-0917

August 2014

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**Department of Energy**  
Washington, DC 20585

August 6, 2014

MEMORANDUM FOR THE SECRETARY

FROM:   
Gregory H. Friedman  
Inspector General

SUBJECT: INFORMATION: Audit Report on "Management of the National Nuclear Security Administration's Biosafety Laboratories"

BACKGROUND

In response to the increase in infectious diseases and the threat of bioterrorism, the Department of Energy's National Laboratories perform research with biological agents. To conduct this biological research, the Department and the National Nuclear Security Administration (NNSA) operate multiple laboratory facilities in accordance with various biosafety levels (BSL) established by the Centers for Disease Control and Prevention. The BSLs classify the containment level and risk associated with biological agents depending on the threat the agents pose to personnel and the environment. For example, BSL-1 is for low-risk agents; BSL-2 is for medium-risk agents; and BSL-3 is for those agents that cause serious and potentially lethal infections. Department and NNSA sites primarily perform BSL-1 and BSL-2 research; however, Lawrence Livermore National Laboratory (LLNL) operates a facility with three BSL-3 laboratories while Los Alamos National Laboratory (LANL) is considering opening a facility with two BSL-3 laboratories. Extensive biological research is performed at LLNL and LANL for other Government agencies through the Department's Work for Others (WFO) program.

In our report on *Coordination of Biological Select Agent Activities at Department of Energy Facilities* (DOE/IG-0695, July 2005), we reported that the Department had not developed a plan for construction and operation of its BSL-3 laboratories. Thus, it lacked assurance that capabilities were not being duplicated unnecessarily. As a result of our prior work and Presidential actions to streamline Government and reduce costs, we initiated this audit to determine whether NNSA managed its biosafety laboratories effectively. We limited our review to biosafety laboratories located at LLNL and LANL.

RESULTS OF AUDIT

We found that NNSA was considering a \$9.5 million expansion of its BSL-3 and BSL-2 laboratory capabilities at LANL that may not be the most effective use of resources. Specifically, NNSA identified the development of a BSL-3 facility at LANL as its preferred alternative for meeting biosafety laboratory needs even though it had not fully considered the need for and cost effectiveness of additional capacity. Nor, had it developed a sound basis for

measuring the utilization of existing facilities – a critical factor in determining the need for additional capacity. Despite the lack of information on the need for additional capacity and current laboratory utilization rates, LANL was also considering building a new BSL-2 facility.

In particular, NNSA proposed development of a facility with two BSL-3 laboratories at LANL. Additionally, LANL is in the early planning stage for constructing a new BSL-2 facility. The estimated cost to open LANL's new BSL-3 and to construct/open BSL-2 capabilities was about \$1.5 million and \$8 million, respectively. Given current budget realities, plans to develop additional capabilities without fully demonstrating a need may not be prudent.

In our judgment, NNSA needs to fully reassess its need for biological research facilities. Prior to 2002, the Department and NNSA maintained responsibility for Chemical and Biological National Security and supporting programs and activities of the Nonproliferation and Verification Research and Development Program. However, the *Homeland Security Act of 2002* transferred responsibility for these programs and activities to the Department of Homeland Security. When the Department's biological research mission was reduced, oversight of the associated activities was fragmented. As a result, the activities no longer benefited from coordinated and specialized program oversight. In particular, although local NNSA field offices approve projects for WFO customers and oversee safety, NNSA does not coordinate or track biological research facilities across its sites and laboratories. As a result, NNSA did not know whether its facilities were utilized efficiently.

To its credit, NNSA recently began a Biological Research Capability Assessment. According to an NNSA official, the purpose of the assessment is to define NNSA's mission requirements for biological research. However, according to the NNSA official, the assessment will not specify what biological research facilities NNSA and each site need to fulfill the mission.

In addition, during the audit we noted that LLNL and LANL's current cost allocation practices may have understated the costs of biological research personnel that support WFO projects. Such actions are inconsistent with the Department's full cost recovery policy for WFO work. Specifically, LLNL and LANL included biosafety research support personnel costs as part of overhead and general and administrative cost pools that are allocated to all site programs. Because NNSA funded most site programs and labor costs that general and administrative cost pools are applied to, this may have resulted in NNSA incurring a disproportionate share of the biosafety support costs as compared to WFO customers.

Conserving resources in these tight economic times is critical to satisfying pressing Department mission needs. Accordingly, we made several recommendations to help ensure biosafety laboratories and costs associated WFO activities are managed effectively.

### MANAGEMENT REACTION

Management generally concurred with our recommendations and identified planned actions. We consider management's comments responsive to our recommendations. Management's comments are included in Appendix 3.

Attachment

cc: Deputy Secretary  
Administrator, National Nuclear Security Administration  
Chief of Staff

# AUDIT REPORT ON MANAGEMENT OF THE NATIONAL NUCLEAR SECURITY ADMINISTRATION'S BIOSAFETY LABORATORIES

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# MANAGEMENT OF THE NATIONAL NUCLEAR SECURITY ADMINISTRATION'S BIOSAFETY LABORATORIES

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## DETAILS OF FINDING

The Department of Energy (Department) and the National Nuclear Security Administration (NNSA) operate multiple laboratory facilities to conduct biological research including extensive research for other Government agencies through the Department's Work for Others (WFO) program. These facilities are operated in accordance with various biosafety levels (BSL) established by the Centers for Disease Control and Prevention. The BSLs classify the containment level and risk associated with biological agents depending on the threat the agents pose to personnel and the environment. For example, BSL-1 is for low-risk agents, BSL-2 is for medium-risk agents and BSL-3 is for those agents that cause serious and potentially lethal infections. Lawrence Livermore National Laboratory (LLNL) operates a facility with three BSL-3 laboratories while Los Alamos National Laboratory (LANL) is considering opening a facility with two BSL-3 laboratories.

We found that NNSA was considering a \$9.5 million expansion of its BSL-3 and BSL-2 laboratory capabilities at LANL that may not be the most effective use of resources. Specifically, NNSA identified the development of a BSL-3 facility at LANL as its preferred alternative for meeting biosafety laboratory needs even though it had not fully considered the need for and cost effectiveness of additional capacity. Nor, had it developed a sound basis for measuring the utilization of existing facilities - a critical factor in determining the need for additional capacity. Despite the lack of information on the need for additional capacity and current laboratory utilization rates, LANL was also considering building a new BSL-2 facility. This situation occurred primarily due to NNSA's lack of coordinated and specialized program oversight after responsibility for Chemical and Biological National Security and supporting programs and activities of the Nonproliferation and Verification Research and Development Program were transferred to the Department of Homeland Security in 2002.

To its credit, NNSA recently began a Biological Research Capability Assessment. According to an NNSA official, the purpose of the assessment is to define NNSA's mission requirements for biological research. However, according to the NNSA official, the assessment will not specify what biological research facilities NNSA and each site need to fulfill the mission.

Additionally, during the audit we noted that LLNL and LANL's current cost allocation practices may have understated the costs of biological research personnel that support WFO projects. Specifically, LLNL and LANL included biosafety research support personnel costs as part of overhead and general and administrative cost pools that are allocated to all site programs. Such actions are inconsistent with the Department's full cost recovery policy for WFO work.

Conserving resources in these tight economic times is critical to satisfying pressing Department mission needs. Thus, in our opinion, NNSA should fully reassess its need for biological research facilities and its charging practices for WFO biosafety research activities.

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## **BSL-3 Laboratory Capacity and BSL-2 Plans**

Neither NNSA nor LANL had fully analyzed the need for and cost effectiveness of alternatives for meeting biosafety facility requirements. NNSA has proposed opening a new BSL-3 facility in a previously constructed building and is in the early planning stage for constructing a BSL-2 facility at Los Alamos. Under NNSA's proposal, LANL would open a BSL-3 facility in February 2015, without the need for additional BSL-3 capacity being fully evaluated and confirmed. The facility was originally built in 2003; however, it was never opened due to litigation and a seismic safety concern. Opening LANL's BSL-3 facility will increase NNSA's net BSL-3 laboratory space<sup>1</sup> from 640 to 1,240 square feet, a 94 percent increase.

To justify opening the facility, LANL reported to NNSA that there was a mission need and that work for the facility would come from customers of LANL's WFO program. However, neither NNSA nor LANL officials provided quantitative projections of demand for WFO projects at the facility or analyzed the current BSL-3 capacity within NNSA. LANL officials explained that most of its WFO projects were obtained by submitting proposals in response to Federal agencies' announcements for research awards. LANL officials believed that its site security and unique capabilities, such as the ability to sequence DNA, positioned it to win numerous awards. LANL issued two reports that assessed the need for a new BSL-3 facility. In 2011, a Parent Organization Functional Management Review concluded that there was a clear mission need for an on-site BSL-3 facility at LANL. LANL also issued a Bioscience Capability Review in 2011. According to that report, an external panel found that the BSL-3 facility was essential to LANL's mission. However, neither of these reviews considered empirical data such as available NNSA capacity at other locations, a critical factor for opening a new facility; or provided estimates of projected use from WFO sponsors.

Despite LANL's assertions, we found outside demand for a new BSL-3 facility to be less certain. Specifically, we contacted two of the three Federal agencies that LANL told us were prospective WFO customers and officials representing those potential customers stated that they did not have any specific plans to contract for BSL-3 research at LANL. Further, officials at both agencies indicated that other existing BSL-3 facilities could satisfactorily meet their needs. In fact, one official told us that generally other existing BSL-3 laboratories were less expensive than expected at the new LANL facility and that several had comparable security. Most striking to us was the fact that an official from the second Federal agency informed us it was building its own BSL-3 facility within the next two years. While our query was limited, it did indicate that demand may not be nearly as likely as LANL suggested and that additional analysis regarding use by potential external customers needs to be completed before additional Federal funds are committed to this project.

### **Alternatives Analysis**

Neither NNSA nor LANL had analyzed the cost effectiveness of alternatives for meeting BSL-3 needs. Although LANL estimated that it expended approximately \$1 million in total in Fiscal

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<sup>1</sup> Net space refers to research space exclusive of space for ventilation, maintenance, etc. The gross building space of LLNL's and LANL's BSL-3 facilities are 1,600 and 3,200 square feet, respectively.

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Years 2010 and 2011, to outsource BSL-3 requirements, LANL officials told us that they had no expenditures in Fiscal Years 2012 and 2013 for such outsourcing because they did not submit any research proposals for BSL-3 work. LANL stated that no proposals were submitted due to the hardships it experienced in outsourcing this type of work in the previous two years. However, LANL could not provide documentation to support its assertions. In our view, the lack of outsourcing in 2012/2013 further raises questions about the need for new facilities. Further, LANL had not provided any analysis of the labor and other costs associated with performing research within a LANL BSL-3 facility as opposed to outsourcing requirements when needed. In addition to the direct costs to perform research within a BSL-3 facility, LANL will also need to expend about \$437,000 in upgrades to mitigate a seismic concern and an additional \$595,000 to open the facility, which includes \$368,000 of operating costs for maintenance, utilities, etc. NNSA also is spending about \$478,000 to complete the required Environmental Impact Statement to support opening and operating the facility.

Additionally, we could not determine whether LLNL's existing BSL-3 laboratory capacity was sufficient to perform the additional biological research that would be performed in the LANL BSL-3 facility. The data regarding actual utilization rates of LLNL's BSL-3 laboratories was not readily available. LLNL asserted that its BSL-3 laboratories were over utilized and did not have the capacity for additional work; however, LLNL did not have data to support its projected biosafety laboratory utilization rates. In fact, LLNL officials stated that its scheduling system did not have the capability to estimate laboratory utilization rates. Thus, we could not verify LLNL's assertions regarding a lack of available additional capacity. We also noted that LANL does not have the capability to determine its biosafety laboratory utilization rates. Verifiable information about the extent to which biosafety laboratories are utilized is a key factor in determining whether additional capacity is needed to meet Department and national needs.

Finally, LANL's proposed plan to construct a new BSL-2 facility had not fully considered options available to meet its biosafety research needs. LANL proposed to begin designing and constructing a new \$8 million BSL-2 facility to replace its existing facility because, according to LANL officials, it had reached its useful life. Even though the new facility is in the early planning stage, LANL had not fully considered the cost-effectiveness of available options to meet its BSL-2 needs. Notably, LANL's Long Range Infrastructure Development Plan dated September 2013, considered four alternative options for performing its BSL-2 work. However, none of the four options contained detailed analyses describing the advantages and disadvantages of each alternative.

### **Mission Need Requirements**

In our judgment, NNSA needs to fully reassess its need for biological research facilities. And, the assessment should take an integrated view which includes assets and capabilities at all of its laboratories and related facilities. Prior to 2002, the Department and NNSA maintained responsibility for Chemical and Biological National Security and supporting programs and activities of the Nonproliferation and Verification Research and Development Program. Accordingly, NNSA proposed to construct BSL-3 facilities at LLNL and LANL. However, the *Homeland Security Act of 2002* transferred responsibility for these programs and activities to the

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Department of Homeland Security. The Act further authorized Department of Homeland Security to utilize the Department's laboratories and sites through joint sponsorships, direct contracts and WFO bases.

When the Department's biological research mission was reduced, oversight of the associated activities was fragmented. Prior to implementation of the Act, certain biological research activities were managed by the Department's Chemical and Biological National Security Program. Subsequent to the Act, to the extent NNSA performed them as WFO, biological research activities were managed by NNSA's Office of Interagency Work, which oversees a wide range of WFO activities. As a result, the activities no longer benefited from coordinated and specialized program oversight. Specifically, although local NNSA field offices approve projects for WFO customers and oversee safety, NNSA does not coordinate or track biological research facilities across its sites and laboratories. For example, we found that NNSA did not require sites to measure and report on their biosafety laboratory capacity and utilization. As a result, NNSA did not know whether its facilities were utilized efficiently. In this context, we found that NNSA and its laboratories based their facility planning decisions on each site's perceptions about future demand from WFO customers. We concluded that the interests of the taxpayers would be better served if the Department and NNSA conducted an organization-wide assessment of needs and the capacity within NNSA and the Department to meet such needs.

Concerns regarding construction and operation of the Department's biosafety laboratories were raised previously by the Office of Inspector General. Our Inspection report, *Coordination of Biological Select Agent Activities at Department of Energy Facilities* (DOE/IG-0695, July 2005), found that the Department had not established an orderly mechanism for coordinating its biological select agent research and development activities. Consequently, there was no assurance that projects were being directed to the laboratory best suited to meet the requirements; resources were being effectively utilized; security implications were being addressed; and capabilities were not being inappropriately duplicated. In response to the report recommendations, management stated that it would re-constitute a coordinating entity that emulates the Department's Biosurety Working Group to coordinate research activities involving select agents and toxins. As a part of this audit, we determined that the Biosurety Executive Working Group currently exists; however, according to an NNSA Headquarters official, it has not performed any facility reviews. In our opinion, given the previously identified issues, and the proposed BSL expansion/replacement, the Department should take necessary steps to ensure that taxpayer-provided funds are spent efficiently and effectively.

### **Recently Announced Biological Research Capability Assessment**

To its credit, NNSA recently began a Biological Research Capability Assessment. According to an NNSA official, the purpose of the assessment is to define NNSA's mission requirements for biological research. However, according to the NNSA official the assessment will not specify what biological research facilities NNSA and each site need to fulfill the mission.

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## Cost Allocation

In the course of our review we observed that LLNL and LANL's current cost allocation practices may have understated the costs of biological research personnel that support WFO projects. In Fiscal Year 2012, LLNL and LANL performed more than 75 percent of BSL-3 and BSL-2 research for WFO customers such as the Department of Homeland Security, the National Institutes of Health and private companies. Examples of WFO support personnel included Institutional Biosafety Committee Chairs, Biological Safety Officers, Responsible Officials, and maintenance personnel for BSL-3 and BSL-2 facilities. The National Institutes of Health require some of these support personnel for certain types of research in order for the laboratories to receive funding (which may be more appropriate as a direct charge). In addition, the Centers for Disease Control and Prevention require a Responsible Official to ensure compliance with Federal regulations when research on select agents is performed in a laboratory. We noted that LLNL and LANL included biosafety research support personnel costs as part of overhead and general and administrative cost pools that are allocated to all site programs. Because NNSA funded most site programs and labor costs that general and administrative cost pools are applied to, this may have resulted in NNSA incurring a disproportionate share of the biosafety support costs as compared to WFO customers. In our opinion, NNSA should review the costs for biosafety research support personnel to determine whether they are appropriately considered part of general and administrative cost pools or should be charged directly to WFO projects.

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## RECOMMENDATIONS

As previously discussed in the Office of Inspector General report on *Management Challenges at the Department of Energy – Fiscal Year 2013* (DOE/IG-0874, October 2012), conserving resource in these tight economic times is critical to satisfying pressing Department mission needs. Accordingly, to help ensure biosafety laboratories are managed effectively, we recommend that the Administrator, National Nuclear Security Administration:

1. Direct NNSA sites to measure and report on their BSL-3 and BSL-2 facility utilization and capacity, and establish a process to use this information effectively in future BSL facility decisions;
2. Revisit and document the need for the proposed BSL-3 and BSL-2 facilities considering mission need; potential external customers; and reliable utilization and capacity metrics for other facilities across the enterprise which might meet those needs, as proposed in Recommendation 1; and
3. Review costs for biosafety research support personnel to determine if the cost allocation structure is appropriate.

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## **MANAGEMENT RESPONSE**

Management generally concurred with our recommendations and identified planned actions. Management indicated that, while not required, it would develop utilization and capacity metrics for its biosafety labs and establish a requirement to report periodically based on established Department of Energy practices such as those used for "user facilities." Management also agreed to use the data from these metrics to inform future biosafety level (BSL) facility decisions. Management also agreed to re-evaluate and more formally document its analysis of the Los Alamos National Laboratory (LANL) BSL-3 facility mission, potential customers, and utilization and capacity data for facilities which can provide similar capabilities. Management also plans to consider the compatibility of the proposed work at LANL and Lawrence Livermore National Laboratory in its decision. Further, if a decision is made to formally pursue a new BSL-2 facility at LANL, NNSA agreed to perform and document a similar evaluation. Finally, management agreed to review the specific components of biosafety research support personnel costs being charged to indirect cost pools and verify that the resulting cost allocation is appropriate.

Management's comments are included in Appendix 3.

## **AUDITOR COMMENTS**

The Department's planned corrective actions are responsive to our recommendations.

## **OBJECTIVE, SCOPE AND METHODOLOGY**

### **Objective**

The objective of this audit was to determine whether the National Nuclear Security Administration (NNSA) managed its biosafety laboratories effectively.

### **Scope**

We performed this audit from November 2012 through August 2014, at Lawrence Livermore National Laboratory (LLNL) in Livermore, California and Los Alamos National Laboratory (LANL) in Los Alamos, New Mexico. The audit covered biosafety level (BSL)-2 and BSL-3 laboratories and activities from October 2010 to August 2013. The audit was conducted under Office of Inspector General Project Number A13LL011.

### **Methodology**

To accomplish the audit objective, we:

- Reviewed laws, regulations, contract provisions, policies and procedures relevant to biosafety facilities/activities and cost accounting;
- Interviewed officials at LLNL, LANL, the Livermore Field Office, the Los Alamos Field Office, NNSA Headquarters, and Department Headquarters;
- Reviewed project details and documentation for BSL-2 projects at LANL and BSL-3 projects at LLNL;
- Obtained lists of support personnel for biosafety biological research at LLNL and LANL and data about their salary and fringe benefits;
- Reviewed LANL's Health Research Laboratory Facility Modernization Plan published in September 2012; and
- Communicated with officials at two other Federal agencies about their plans to use the BSL-3 facility at LANL.

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 based on our audit objective. The audit included tests of controls and compliance with laws and regulations necessary to satisfy the audit objective. We also assessed compliance with the *GPR Modernization Act of 2010*. We examined performance measures related to biosafety facilities and activities and found that NNSA had not established

related performance measures as part of its Annual Performance Plan. Because our review was limited, it would not have necessarily disclosed all internal control deficiencies that may have existed at the time of our audit. We did not rely solely on computer-generated data to satisfy our objective. Instead, we performed other procedures to satisfy ourselves as to the reliability and competence of the data by reviewing and analyzing data and performing interviews as it relates to biosafety facilities and activities. In addition, we confirmed the validity of other data, when appropriate, by reviewing supporting source documents.

Management waived an exit conference.

## **PRIOR REPORTS**

### **Office of Inspector General**

- Audit Report on [\*Management Challenges at the Department of Energy – Fiscal Year 2013\*](#) (DOE/IG-0874, October 2012). This report noted that operational efficiency and cost savings should be a top priority for management. Consolidating duplicative National Nuclear Security Administration functions was identified as one way in which the Department of Energy (Department) could reduce the overall cost of operations.
- Inspection Report on [\*Coordination of Biological Select Agent Activities at Department of Energy Facilities\*](#) (DOE/IG-0695, July 2005). This inspection found that the Department did not have a plan for developing, constructing and operating biosafety level (BSL)-3 laboratories. As a result, the Department lacked assurance that resources were being utilized efficiently and that capabilities were not being duplicated inappropriately.

### **Government Accountability Office**

- [\*High Containment Laboratories: Assessment of the Nation's Need is Missing\*](#) (GAO-13-466R, February 2013). The Government Accountability Office (GAO) reported that the number of high-containment laboratories had further increased since its 2009 report. GAO added that the cost of building and maintaining these laboratories, combined with the current lack of national standards and the uncertainty about the number of high-containment laboratories needed to address priorities, exposed the nation to risk.
- [\*OVERLAP AND DUPLICATION: Federal Inspections of Entities Registered with the Select Agent Program\*](#) (GAO-13-154, January 2013). GAO reported that the number of registered biosafety laboratories had grown to over 1,900. Some overlap and duplication existed among the agencies responsible for inspecting select agent laboratories.
- [\*HIGH-CONTAINMENT LABORATORIES: National Strategy for Oversight Is Needed\*](#) (GAO-09-574, September 2009). GAO reported that the number of high-containment laboratories in the United States had expanded in response to the anthrax attacks in 2001. In particular, the number of BSL-3 laboratories registered with the Centers for Disease Control (CDC) had grown from 415 in 2004 to 1,362 in 2008. GAO found that no Federal agency had the mission to track the expansion of BSL-3 and BSL-4 laboratories in the United States and none knew how many such laboratories existed.
- [\*HIGH-CONTAINMENT BIOSAFETY LABORATORIES: Preliminary Observations on the Oversight of the Proliferation of BSL-3 and BSL-4 Laboratories in the United States\*](#) (GAO-08-108T, October 2007). In testimony before Congress, GAO reported that a major proliferation of high-containment BSL-3 and BSL-4 labs was taking place in the United States. In particular, there were 1,356 BSL-3 laboratories registered with the CDC and 458 of them were Federal laboratories. GAO noted that no single Federal agency had the mission to track and determine the risk associated with the expansion of BSL-3 and BSL-4 laboratories in the United States.

## MANAGEMENT COMMENTS



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



June 24, 2014

MEMORANDUM FOR GREGORY H. FRIEDMAN  
INSPECTOR GENERAL  
FOR AUDITS AND INSPECTIONS  
OFFICE OF INSPECTOR GENERAL

FROM: FRANK G. KLOTZ *FK 6/24/2014*

SUBJECT: Inspector General Draft Report Titled "*Management of the National Nuclear Security Administration's Biosafety Laboratories*" (A13LL011/2012-02805)

Thank you for the opportunity to review the subject draft report. We understand the purpose of this review was to evaluate how effectively the National Nuclear Security Administration (NNSA) managed its biosafety laboratories at Los Alamos National Laboratory (LANL) and Lawrence Livermore National Laboratory (LLNL). The report provides three recommendations for NNSA action.

NNSA agrees with the recommendations which support enhancing documentation of current and future Biosafety Laboratory (BSL) facility decisions, and verifying the appropriateness of current cost allocation structures. We are committed to re-validate and document the current need for the BSL 3 facility during the course of preparing the National Environmental Policy Act Environmental Impact Statement given the time that has passed since original construction of the facility. We will also fully evaluate and document the need for a BSL 2 facility should a decision be made to more formally pursue that option. However, we believe findings and observations regarding a BSL 2 facility are premature as internal discussions are pre-conceptual and no plans have been made to formally pursue such a facility at this time.

We appreciate the auditors' efforts and will consider all of the report's observations in our future plans. NNSA maintains an enduring need for BSL capabilities to meet our unique needs and the needs of external customers. We believe pursuit of the best practices noted in this report will help ensure we provide the most cost effective solutions, while providing greater transparency of the facts supporting our decisions.



The attachment to this memorandum provides our detailed response to each of the recommendations, in addition to technical and general comments for your consideration in improving the clarity and factual accuracy of the report.

If you have any question, please contact Dean Childs, Director, Audit Coordination and Internal Affairs, at (301) 903-1341.

Attachment

Response to the Inspector General Draft Audit Report Titled  
“Management of the National Nuclear Security Administration’s Biosafety Laboratories”  
(A13LL011/ 2012-02805)

**Response to Report Recommendations**

***The Inspector General (IG) recommended the National Nuclear Security Administration (NNSA):***

**Recommendation 1:** *Direct NNSA sites to measure and report on their Biosafety Laboratory (BSL) 2 and 3 facility utilization and capacity, and establish a process to use this information effectively in future BSL facility decisions.*

***Management Response:*** Concur

While not required, NNSA agrees that establishing formal metrics on utilization and capacity rates would be a useful best practice to support NNSA’s ability to more easily and formally document its drivers for BSL decisions. NNSA will develop utilization and capacity metrics and establish a requirement to report periodically based on established Department of Energy (DOE) practices such as those used for “user-facilities.” The data from these metrics, as well as other considerations such as comparability of capabilities, will be used to inform future BSL facility decisions. The estimated completion for these actions is December 31, 2014.

**Recommendation 2:** *Revisit and document the need for the proposed BSL 3 and BSL 2 facilities considering mission need; potential external customers; and reliable utilization and capacity metrics for other facilities across the enterprise which might meet those needs, as proposed in recommendation 1.*

***Management Response:*** Concur

While NNSA agrees with the auditors to develop utilization metrics for our BSL 3 Laboratories, the decision to operate the BSL 3 facility at the Los Alamos National Laboratory (LANL) would also consider the compatibility of the proposed work at each site. Currently, the proposed work at LANL could not be reasonably conducted at the Lawrence Livermore National Laboratory (LLNL) facility. NNSA has conducted analyses to support its BSL plans and decisions to date. However, we agree to revisit plans for the Los Alamos Field Office facilities considering the findings in this report. Specifically:

- 1) As part of the process for conducting the National Environmental Policy Act Environmental Impact Statement (NEPA-EIS) for the BSL 3 facility, NNSA will re-evaluate and more formally document its analysis of the facility mission, potential customers, and consideration of utilization and capacity data for facilities which can provide similar capabilities; and

Response to the Inspector General Draft Audit Report Titled  
“Management of the National Nuclear Security Administration’s Biosafety Laboratories”  
(A13LL011/ 2012-02805)

- 2) If a decision is made to formally pursue a new BSL 2 facility, NNSA will fully evaluate and document the need for the facility considering mission need; potential external customers; and reliable utilization and capacity metrics for other facilities across the enterprise that can provide similar capabilities. These activities would be conducted in accordance with established Departmental project management requirements, to include formal consideration of both design and acquisition alternatives.

The estimated completion date for these activities is December 31, 2014.

**Recommendation 3:** Review costs for biosafety research support personnel to determine if the cost allocation structure is appropriate.

**Management Response: Concur**

NNSA does not see any compelling evidence in the report which would indicate that the structure for allocating biosafety research support personnel costs is inappropriate. The allocation of these costs through indirect cost pools is consistent with all other similar types of costs across DOE and NNSA, and is consistent with Cost Accounting Standards and NNSA/DOE policy. It is also important to note that the appropriateness of costs to be charged to indirect cost pools is not solely and directly dependent on the percentage of Work for Others (WFO) performed as implied in the report.

However, we do agree that it is important to review and verify selected components of cost pools in greater detail when questions arise during the course of external audits to ensure transparency and continued confidence in NNSA’s financial practices. Therefore, NNSA will review the specific components of biosafety research support personnel costs being charged to indirect cost pools, and verify that the resulting cost allocation is appropriate. The estimated completion date for this action is September 30, 2014.

## **FEEDBACK**

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Office of Inspector General (IG-12)  
Department of Energy  
Washington, DC 20585

If you want to discuss this report or your comments with a member of the Office of Inspector General staff, please contact our office at (202) 253-2162.