



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

AUDIT REPORT

Office of Science's Management of Research
Misconduct Allegations

OAS-M-14-09

August 2014



Department of Energy
Washington, DC 20585

August 12, 2014

MEMORANDUM FOR THE ACTING DIRECTOR, OFFICE OF SCIENCE

A handwritten signature in cursive script, reading "George W. Collard".

FROM: George W. Collard
Assistant Inspector General
for Audits
Office of Inspector General

SUBJECT: INFORMATION: Audit Report on "Office of Science's Management of Research Misconduct Allegations"

BACKGROUND

Science and technology are the foundations of Department of Energy (Department) activities. In response to a Government-wide mandated Federal policy to protect the integrity of Federally-funded research, and preserve public trust and confidence, the Department in June 2005, published its interim final *Policy on Research Misconduct* in the Federal Register. To implement the policy, the Department established procedures applicable to research conducted under a contract or financial assistance agreement. Such procedures are detailed in the Department's Acquisition Regulation (DEAR) 952.235-71, *Research Misconduct*, and in the Code of Federal Regulations (CFR) 10 CFR 600.31, *Research Misconduct*, and 10 CFR 733, *Allegations of Research Misconduct*.

Research misconduct is the fabrication, falsification or plagiarism in proposing, performing or reviewing research, or in reporting research results. There are three basic steps to processing an allegation — an inquiry, an investigation, and adjudication. The Department assigns primary responsibility for a research misconduct inquiry and investigation to the entity conducting the research, while the Department provides oversight. Entities that receive an allegation are required to make various notifications to the Office of Inspector General (OIG) and other appropriate officials as they work to address the issues involved.

The Department's Office of Science (Science) is the lead Federal agency supporting fundamental scientific research for energy and the Nation's largest supporter of basic research in the physical sciences. Science supports National Laboratories and approximately 25,000 scientists and engineers at approximately 300 U.S. academic institutions. In Fiscal Year (FY) 2013, Science requested about \$2.4 billion for research. Between FYs 2009 and 2013, Science and the National Laboratories it manages received just over 30 allegations of research misconduct. Due to the importance of scientific research integrity, we initiated this audit to determine whether Science properly managed allegations of research misconduct.

RESULTS OF AUDIT

We found that Science and the National Laboratories included in our review established organizational and procedural mechanisms for receiving and reviewing research misconduct

allegations. Although we did not review the actual allegations, we did review the actions taken by Science and the National Laboratories on the allegations they received. In particular, we reviewed actions taken on 21 research misconduct allegations received by Science, the Integrated Support Center-Chicago Office, the Argonne National Laboratory (ANL), the Lawrence Berkeley National Laboratory (LBNL), and the Oak Ridge National Laboratory (ORNL). Based on these reviews, nothing came to our attention to indicate that allegations were not appropriately addressed at the sites included in our review. While each allegation appeared to be properly addressed, we did identify instances where notifications were not made or local laboratory procedures were not followed.

Notifications

Department programs, laboratories, and financial assistance recipients did not always make notifications of allegations as required by Department regulations. For example, we noted one instance where Science sent an allegation of plagiarism directly to ANL without notifying the OIG. Federal regulations (10 CFR 733) require such notification to allow the OIG to determine whether it needed to exercise its statutory responsibility to investigate possible fraud. The Science official that received the allegation and sent it to ANL stated that she was unaware of the requirement to consult with the OIG.

ANL acted on the allegation and initiated an inquiry that led to a formal investigation. However, upon initiation of the formal investigation, ANL officials neglected to notify the Contracting Officer as required by DEAR clause 952.235-71. The Contracting Officer is responsible for determining that appropriate actions were taken. ANL officials stated they verbally disclosed the allegation to the Argonne Site Office Deputy Manager but not the Contracting Officer. ANL officials acknowledged that they should have informed the Contracting Officer directly. The Contracting Officer did not learn of the allegation until receiving the results of the completed investigation which substantiated that misconduct had occurred, resulting in the dismissal of the researcher.

In another instance, LBNL had not notified the Contracting Officer about an investigation of research misconduct related to plagiarism concerning work not funded by the Department. LBNL officials confirmed the misconduct and discussed the results with the funding agency sponsoring the research; however, LBNL did not forward the evidentiary record or coordinate corrective actions with the Department's Contracting Officer as required. This occurred because LBNL's policy only required disclosure to the funding agency. Such policy contradicted requirements in LBNL's management and operating contract requiring it to follow Department regulations to notify the Contracting Officer when all investigations were started and completed. LBNL pointed out that the Contracting Officer had accepted its policy as appropriate implementation of the requirements. However, the Contracting Officer agreed that such acceptance was an oversight and would direct LBNL to align its policy to the contract clause. As of June 2014, LBNL, with Contracting Officer concurrence and participation, was in the final stages of revising the research misconduct policy to incorporate the necessary elements.

Finally, we noted one instance in which a financial assistance recipient neglected to notify the Contracting Officer of an investigation it conducted, as required by 10 CFR 600.31. The

investigation involved an allegation that a researcher fabricated data in research papers the researcher co-authored. Science did not learn of the investigation until it contacted the recipient concerning an allegation received by the OIG. Furthermore, the recipient did not forward the evidentiary record, the investigation report and recommendations to the Contracting Officer after the investigation was completed as required. The recipient's investigation into the allegation found no misconduct. According to Science's review of the circumstances, the recipient failed to adhere to the research misconduct requirements to notify the Department regarding the investigation; however, the recipient followed its own allegation policies and procedures. Further, a Science official stated that the recipient should be reminded to inform the Contracting Officer of investigations into research misconduct.

Because the required notifications were not made, the OIG and Contracting Officer were unable to execute their respective investigative and contract administrative responsibilities. From our perspective, such notifications are important in that the OIG can pursue criminal sanctions depending on the circumstances of the case.

Internal Procedures

Our review also found that ORNL and LBNL had not always followed local laboratory research misconduct procedures when processing allegations. Specifically:

- Allegation reviews were not always completed within recommended timeframes at both of the National Laboratories. ORNL's procedures state that the initial assessment should be concluded within a week, while an inquiry should be concluded within 30 days. We reviewed eight ORNL allegations and found that ORNL officials did not process five allegations within one or both of these timeframes. Recognizing that the timeframes are not absolute requirements, ORNL officials cited that three of the delays were for reasons outside of their control, such as personnel on travel; however, they could not provide explanations for two of the delays. To their credit, status updates were documented for some of the allegations. We also found that one of the allegation assessments at LBNL took 55 days, which was beyond the week timeframe shown in LBNL's policy. LBNL's official could not explain why the procedures were not always followed and documented.
- Charge letters to individuals conducting the inquiries that explained the purpose and scope of the inquiry were not included in two of the eight files at ORNL, and we could not locate documents notifying the individuals against which the allegations were made of the outcome of three inquiries, as required.
- ORNL members of the inquiry teams did not sign Conflict of Interest (COI) statements for three of the allegations we reviewed. We also found that documentation for the Office of General Counsel's review of the COI statements was not completed. ORNL's procedures require all potential members of an inquiry team to sign COI statements which are then to be reviewed by ORNL's Office of General Counsel. These statements are to ensure that the individuals serving on the inquiry team have no unresolved conflicts of interest. We consider signed statements to be a best practice that was not

found at the other laboratories. Throughout the course of the audit, ORNL officials stated the reason why we could not confirm these procedures were followed was likely because they were done verbally or more informally in the past and, as a result, the files lacked documentation of all review activities that occurred. In response to our findings, ORNL officials assigned a specific individual to ensure all required documentation and evidence is created and retained in the files.

- LBNL did not document its determination that no additional records were required to be sequestered for one allegation that proceeded from inquiry to investigation. LBNL policies address preservation of the documentation necessary to review the allegation at both the inquiry and investigation stages.

The proper handling of research misconduct allegations is critical to preserving and promoting scientific integrity. Both Federal and Department policies place primary responsibility on the research organization for the inquiry, investigation and adjudication of misconduct allegations. Given such reliance, policies and procedures need to be established and followed. Acting promptly on an allegation is also key to capturing facts while still fresh and protecting vital documentation that may be lost over time. Additionally, open communication is integral to protecting positions and reputations. Notifying the respondents of the proceedings, for example, allows their comments to be part of the inquiry record.

Impact and Path Forward

The failure to fully implement research misconduct policies and procedures are the result of an apparent lack of understanding on the part of laboratories and financial assistance recipients. Without adequate knowledge and understanding of the research misconduct policies and procedures, Science cannot be assured that misconduct cases are handled appropriately, and thereby opens itself up to negative scrutiny and potential harm to its research reputation.

RECOMMENDATION

To ensure that research misconduct allegations are handled appropriately, in addition to actions already being taken, we recommend that Science provide additional education and guidance on the procedures and responsibilities for conducting research misconduct allegation reviews to Department officials, laboratories, and financial assistance recipients.

MANAGEMENT REACTION

Management concurred with the findings and the recommendation. Management agreed to initiate active outreach to Science's program, contracting, and field office personnel as well as to the National Laboratories and institutions receiving Science funding to raise awareness of the Department's research misconduct policies and procedures. Science will also make Federal and Department policies and procedures available through its website.

Management's formal comments are included in Attachment 3.

AUDITOR COMMENTS

Management's corrective actions are responsive to our recommendation.

Attachments

cc: Deputy Secretary
Deputy Under Secretary for Science and Energy
Chief of Staff

OBJECTIVE, SCOPE AND METHODOLOGY

OBJECTIVE

The objective of this audit was to determine whether the Office of Science (Science) properly managed allegations of research misconduct.

SCOPE

We conducted the audit from October 2013 to August 2014, at Science Headquarters in the Washington, DC, area. We also visited Lawrence Berkeley National Laboratory (LBNL) in Berkeley, California; Argonne National Laboratory in Argonne, Illinois; the Integrated Support Center-Chicago Office (Chicago Office) in Argonne, Illinois; and the Oak Ridge National Laboratory in Oak Ridge, Tennessee. The scope of the audit covered research misconduct allegations from Fiscal Years 2009 through 2013. We also reviewed one additional research misconduct allegation at LBNL that occurred during Fiscal Year 2008. This audit was conducted under Office of Inspector General Project Number A13CH061.

METHODOLOGY

To accomplish the audit objective, we:

- Researched applicable Federal and Department of Energy regulations and guidance related to research misconduct.
- Reviewed prior Office of Inspector General reports related to the audit objective.
- Requested that Science solicit its field offices and National Laboratories concerning the number of research misconduct allegations received.
- Judgmentally selected a cross section of entities within Science. We selected all research misconduct allegations from Science Headquarters due to the involvement in the process and the number of allegations forwarded to them by the Office of Inspector General Hotline. We judgmentally sampled allegations at 3 of 10 National Laboratories based on our review of the allegations and concerns raised in the past. We also selected the Chicago Office because of its purview over financial assistance recipients to Science. Because a judgmental sample of sites was used, results are limited to the sites selected.
- Conducted site visits and interviewed personnel from Science Headquarters, the Chicago Office, and the National Laboratories in our sample.
- Confirmed the number of allegations reported by the sites we selected to sample.
- Reviewed and evaluated research misconduct policies and procedures at the National Laboratories in our sample.

- Evaluated all research misconduct allegation files at each of the selected sites comparing the documentation to the requirements and policies.

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 test of controls and compliance with laws and regulations to the extent necessary to satisfy the audit objective. In particular, we assessed the implementation of the *GPRA Modernization Act of 2010* as necessary to accomplish the objective, and found that there were no established performance measures related to research misconduct. 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. We did not rely on computer-processed data to satisfy our audit objective.

Management waived an exit conference.

PRIOR REPORT

- Inspection Report on [*Inspection on the Review of Scientific Integrity Issues at Lawrence Berkeley National Laboratory*](#) (DOE/IG-0478, July 2000). The inspection report noted that a research scientist at Lawrence Berkeley National Laboratory had intentionally falsified and misrepresented research data to the level of scientific misconduct. At the time, the Department of Energy did not have a policy for addressing allegations of scientific misconduct; and accordingly, the responsible officials apparently believed that they had no obligation to take corrective action in response to the research misconduct.

MANAGEMENT COMMENTS



Department of Energy
Office of Science
Washington, DC 20585

Office of the Director

July 18, 2014

MEMORANDUM FOR RICKEY R. HASS
DEPUTY INSPECTOR GENERAL
FOR AUDITS AND INSPECTIONS
OFFICE OF INSPECTOR GENERAL

FROM: PATRICIA M. DEHMER *Patricia M. Dehmer*
ACTING DIRECTOR
OFFICE OF SCIENCE

SUBJECT: Response to Inspector General's Draft Report, "Research Misconduct at the Department of Energy's Office of Science"

Thank you for the opportunity to review and comment on the subject draft report. The Office of Science (SC) welcomes the Inspector General's finding: "Nothing came to our attention to indicate that [research misconduct] allegations we reviewed were not appropriately evaluated and addressed." SC also concurs with the finding: "While each allegation appeared to be properly evaluated and addressed, we did identify instances where Science and the national laboratories did not make required notifications or follow local laboratory procedures."

In addition, SC provided the three National Laboratories reviewed in the audit with an opportunity to respond to the draft report. We received the following response from Lawrence Berkeley National Laboratory: "LBNL appreciates the opportunity to review and comment on the draft presented. We agree with the facts presented and conclusions reached, and recognize the appropriateness of the recommendation."

Discussion of the report's recommendation follows.

Recommendation

To ensure that research misconduct allegations are handled appropriately, in addition to actions already being taken, we recommend that Science provide additional education and guidance on the procedures and responsibilities for conducting research misconduct allegation reviews to Department officials, laboratories, and financial assistance recipients.

Management Response: SC concurs. SC will initiate active outreach to SC program management, contracting, and field office personnel; SC National Laboratory leadership; and institutions currently receiving SC financial assistance to raise awareness of DOE research misconduct policies and procedures. SC will provide a readily accessible location on the SC website with all relevant documents detailing federal and DOE policies and procedures for handling of research misconduct allegations. SC plans to complete these actions by November 30, 2014.



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

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