



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

December 31, 2018

EA-18-031  
EA-18-111

David Diamond, Acting Associate Director  
Energy and Minerals  
U.S. Geological Survey  
12201 Sunrise Valley Drive  
Reston, VA 20192

**SUBJECT: U.S. GEOLOGICAL SURVEY–NOTICE OF VIOLATION AND PROPOSED  
IMPOSITION OF CIVIL PENALTY - \$7,250 (NRC INSPECTION REPORT  
50-274/2018-204 AND NRC INVESTIGATION REPORTS 4-2017-027  
AND 4-2018-005)**

Dear Mr. Diamond:

This letter refers to two investigations completed on January 18, 2018, and June 12, 2018, by the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI) at the U.S. Geological Survey (USGS) Training Research Isotopes General Atomic (TRIGA) Research and Test Reactor (reactor) facility. The purpose of these investigations was to determine whether a USGS TRIGA reactor supervisor willfully submitted information known to be incomplete and inaccurate to the NRC and willfully failed to follow technical specifications by placing the reactor in an unsecure state without meeting the minimum staffing requirements. A factual summary of the investigations was issued as an enclosure to our letter dated September 14, 2018, Agencywide Documents Access and Management System (ADAMS) Accession No ML18255A303.

In the letter transmitting the factual summary of the investigation reports, we provided USGS the opportunity to address the apparent violations identified in the letter by attending a predecisional enforcement conference (PEC), participating in alternative dispute resolution (ADR), or providing a written response before we made our final enforcement decision. In letters dated October 9, 2018, and November 8, 2018, USGS provided written responses to the apparent violations.

Based on the information developed during the investigations and the information USGS provided in your written responses, the NRC has determined that two violations of NRC requirements occurred. These violations are cited in the enclosed Notice of Violation (Notice) (Enclosure 1). The circumstances surrounding them are described in detail in NRC Inspection Report 50-274/2018-204 dated September 14, 2018.

The first violation involves the failure of USGS to meet the minimum staffing requirements when the reactor was not secured. Specifically, on October 15, 2017, the Reactor Supervisor unsecured the reactor during the performance of scram checks without a second person

present within the Denver Federal Center who was able to carry out prescribed instructions. After considering the information provided during the pre-decisional enforcement conference for the Reactor Supervisor and supplemental information submitted after the conference, the NRC determined this violation was not willful. Based on the non-willful nature of this violation and its low safety-significance, the NRC has determined that this is a Severity Level IV violation.

The second violation involves the failure of USGS to maintain complete and accurate records in all material respects. Specifically, on or about April 11, 2017, the Reactor Supervisor created inaccurate records by deliberately preparing documents indicating that all operators had completed their required training when the required training had not taken place, and then provided these documents to the NRC inspector during an inspection at the USGS TRIGA reactor facility in April 2017.

Although this violation did not result in an actual consequence, the failure to provide accurate and complete information is of significant concern to the NRC. The NRC's regulatory program is based on licensees and their employees acting with integrity and communicating with candor. The NRC cannot tolerate willful violations, including the deliberate submittal of inaccurate information to the NRC by the USGS reactor supervisor, and holds licensees accountable for the actions of their employees.

Given the significance of the underlying issue and the deliberate nature of the reactor supervisor's actions, this violation is categorized in accordance with the NRC Enforcement Policy as a Severity Level III violation.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$7,250.00 is considered for a Severity Level III violation. Because the violation was willful, the NRC considered whether credit was warranted for Identification and Corrective Action in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. The NRC determined that credit was not warranted for Identification as the violation was identified by the NRC. The NRC considered the corrective actions identified in your letters dated October 9, 2018, and November 8, 2018, which included, but were not limited to: (1) changing the process for requalification training so that each staff member signs a record indicating their presence at the training; (2) temporarily detailing the reactor supervisor to a position outside of the TRIGA facility; (3) suspending the reactor supervisor's physical access to the TRIGA facility; and (4) pausing power operation of the reactor to allow for the assessment of the violations and the broader safety and operational culture within the reactor organization. The NRC noted that the initial corrective actions documented in your letter dated October 9, 2018, were not prompt and failed to meet our expectations for regulatory response. However, based on the totality of the corrective actions including those documented in your letter dated November 8, 2018, the NRC has determined that credit was warranted for Corrective Action.

Therefore, to emphasize the importance of operator requalification training, accurate and complete information, and the identification of violations, I hereby issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the base amount of \$7,250.00.

If you disagree with this enforcement sanction, you may deny the violation, as described in the Notice, or you may request alternative dispute resolution (ADR) with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a neutral third party. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator")

works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's ADR program can be found at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>.

The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. If you are interested in pursuing this issue through the ADR program, please contact: (1) the ICR at (877) 733-9415; and Mr. Juan Peralta at (301) 287-9510 within 10 days of the date of this letter. You may also contact both ICR and Mr. Juan Peralta for additional information. Your submitted signed agreement to mediate using the NRC ADR program will stay the 30-day time period for payment of the civil penalty and the required written response, as identified in the enclosed notice, until the ADR process is completed.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response please provide the results of your assessment of the violations which included the broader safety and operational culture within the reactor organization at USGS. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be made available electronically for public inspection in the NRC Public Document Room and from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>.

If you have any questions, please contact Mr. Juan Peralta of my staff at (301) 287-9510.

Sincerely,

/RA/

Anne T. Boland, Director  
Office of Enforcement

Docket No. 50-274  
License No. R-113

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. NUREG/BR-0254 Payment Methods

cc w/enclosures: Electronic Distribution

SUBJECT: U.S. GEOLOGICAL SURVEY–NOTICE OF VIOLATION AND  
PROPOSED IMPOSITION OF CIVIL PENALTY - \$7,250 (NRC  
INSPECTION REPORT 50-274/2018-204 AND NRC INVESTIGATION  
REPORTS 4-2017-027 AND 4-2018-005). DATED: 12/31/2018

DISTRIBUTION: w/o Enclosure

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**\*Concurred via e-mail**

OFFICE	NRR/DIRS	OGC	NRR/DLP	OE
NAME	LCasey	LBaer	LLund	ABoland
DATE	12/19/18	12/19/18	12/19/18	12/31/18

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NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

U.S. Geological Survey  
Denver Federal Center

Docket No. 50-274  
License No. R-113  
EA-18-031  
EA-18-111

During U.S. Nuclear Regulatory Commission (NRC) investigations completed on January 18, 2018, and June 12, 2018, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and the Title 10 of the *Code of Federal Regulations* (10 CFR) 2.205. The particular violations and associated civil penalty are set forth below:

I. Violation Assessed a Civil Penalty

- A. 10 CFR § 50.9, "Completeness and accuracy of information," paragraph (a), states, in part, that information required by the Commission's regulations, orders, or license conditions to be maintained shall be complete and accurate in all material respects.

10 CFR § 55.59, "Requalification," paragraph (a)(1) states that each licensee shall successfully complete a requalification program developed by the facility licensee that has been approved by the Commission. This program shall be conducted for a continuous period not to exceed 24 months in duration.

"Reactor Operation Requalification Program Manual, U.S. Geological Survey TRIGA Reactor," states, "A minimum of two training meetings shall be scheduled during each requalification year."

Contrary to the above, on approximately April 11, 2017, the licensee failed to maintain complete and accurate records in all material respects. Specifically, on or about April 11, 2017, the Reactor Supervisor created an incomplete and inaccurate record when the Reactor Supervisor deliberately prepared false documents indicating that all operators had completed all their required training when the required training had not been completed, and provided these documents to the NRC inspector during an inspection at the USGS TRIGA reactor facility in April 2017.

This is a Severity Level III violation (NRC Enforcement Policy Section 6.4, 6.9)

Civil Penalty - \$7,250.00 (EA-18-031)

## II. Violation Not Assessed a Civil Penalty

- A. United States Geological Survey (USGS) Research and Test Reactor (RTR) Technical Specification (TS) 6.1.3, "Staffing", states, in part, that the minimum staffing when the reactor is not secured shall be: a) licensed operator in the control room; b) a second person present within the Denver Federal Center who is able to carry out prescribed instructions.

Contrary to the above, on approximately October 15, 2017, the licensee failed to meet the minimum staffing requirements when the reactor was not secured. Specifically, on or about October 15, 2017, the Reactor Supervisor unsecured the reactor during the performance of scram checks without a second person present within the Denver Federal Center who was able to carry out prescribed instructions.

This is a Severity Level IV violation (NRC Enforcement Policy Section 6.1)

(EA-18-111)

Pursuant to the provisions of 10 CFR 2.201, U.S. Geological Survey (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a copy to the Director, Office of Nuclear Reactor Regulation, and the Document Control Desk, Washington, DC 20555-0001, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation: EA-18-031 and EA-18-111" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, the NRC may issue an order or a Demand for Information requiring you to explain why your license should not be modified, suspended, or revoked or why the NRC should not take other action as may be proper. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

The Licensee may pay the civil penalty proposed above or the cumulative amount of the civil penalties if more than one civil penalty is proposed, in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a statement indicating when and by what method payment was made, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. Should the Licensee fail to answer within 30 days of the date of this Notice, the NRC will issue an order imposing the civil penalty. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation(s) listed in this Notice, in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed.

In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the response should address the factors addressed in Section 2.3.4 of the Enforcement Policy. Any written answer addressing these factors pursuant to 10 CFR 2.205, should be set forth separately from the statement or explanation provided pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing (a) civil penalty.

Upon failure to pay any civil penalty which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205 to be due, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above, i.e., Reply to Notice of Violation, Statement as to payment of civil penalty, and Answer to a Notice of Violation, should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to Director, Office of Nuclear Reactor Regulation, and the Document Control Center, Washington, DC 20555-0001.

Your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, it should not include any personal privacy, proprietary. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 31st day of December 2018

NUREG/BR-0254 Payment Methods

ML18043A050

Enclosure 2