



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
475 ALLENDALE ROAD – SUITE 102
KING OF PRUSSIA, PA 19406-1415

November 3, 2022

EA-22-079

José J Jimenéz, Acting Facility Manager
Environmental Protection Agency,
Environmental Science Center – Suite 5350
701 Mapes Road
Fort Meade, Maryland 20755

SUBJECT: ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL SCIENCE CENTER, NRC INSPECTION NO. 03007656/2022001 AND NOTICE OF VIOLATION

Dear Mr. Jimenéz:

This letter refers to the inspection conducted by Nuclear Regulatory Commission (NRC) on June 6, 2022, at the Environmental Protection Agency, Environmental Science Center facility located on the Fort Meade, Maryland campus. The inspection was continued in-office until October 19, 2022. This inspection examined activities conducted under your license as they relate to public health and safety, and to confirm compliance with the NRC's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. A telephonic exit meeting was conducted with you, Michael White, and John Currey of your office on October 19, 2022.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. This violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The violation is being cited in the enclosed Notice of Violation (Notice) because the violation was identified by the NRC.

The NRC has concluded that the information regarding: (1) the reason for the violation; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in NRC Inspection Report No. 03007656/2022001. Therefore, you are not required to respond to this letter unless the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, will be made available electronically for public inspection in the NRC Public Document Room or 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 or proprietary information so that it can be made available to the Public without redaction.

Should you have any questions regarding this letter, the inspection report, or the enclosed Notice, please contact Randolph C Ragland, Jr., of my staff at 610-337-5083 or via email at Randolph.Ragland@nrc.gov.

Thank you for your cooperation.

Sincerely,

Chris G. Cahill, Chief
Commercial, Industrial, R&D, & Academic
Branch
Division of Radiological Safety and Security
Region I

Docket No. 030-07656
License No. 19-14125-01

Enclosures:
Notice of Violation
NRC Inspection Report No. 03007656/2022001

ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL SCIENCE CENTER, NRC
 INSPECTION NO. 03007656/2022001 AND NOTICE OF VIOLATION DATED NOVEMBER 3,
 2022

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OFFICIAL RECORD COPY

NOTICE OF VIOLATION

Environmental Protection Agency,
Environmental Science Center
Fort Meade, Maryland

Docket No. 030-07656
License No. 19-14125-01
EA-22-079

During an NRC inspection conducted on June 6, 2022, and continued in-office until October 19, 2022, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Condition 11.b, Amendment 15, NRC License No. 19-14125-01, dated December 19, 2012, authorized a specific individual to fulfill the duties and responsibilities of the Radiation Safety Officer (RSO) for the license.

Contrary to the above, from October 2018 to August 24, 2022, the licensee did not identify a specific individual to fulfill the duties and responsibilities of the RSO as described in Condition 11.b, Amendment 15, NRC License No. 19-14125-01, dated December 19, 2022. Specifically, the RSO listed on the license transferred to EPA Headquarters in Washington, DC and his position was not replaced by a new RSO.

This is a Severity Level IV violation (Enforcement Policy Section 6.3.d).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket in NRC Inspection Report No. 03007656/2022001. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, (EA-22-079)" and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room (PDR) 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>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

Notice of Violation
Environmental Protection Agency,
Environmental Science Center

2

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

Dated this third day of November 2022

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

EA No. EA-22-079
Inspection No. 03007656/2022001
Docket No. 03007656
License No. 19-14125-01
Licensee: EPA Region 3, Environmental Science Center
Location: 701 Mapes Road,
Fort Meade, Maryland 20755
Inspection Dates: June 6, 2022, with in-office review until October 19, 2022

Inspector(s):

Randolph C. Ragland, Jr., Senior Health Physicist
Commercial, Industrial, R&D, and Academic (CIRDA) Branch
Division of Radiological Safety & Security
NRC Region I
_____ date

Approved By:

Chris G. Cahill, Chief, CIRDA
Division of Radiological Safety & Security
NRC Region I
_____ date

EXECUTIVE SUMMARY

Environmental Protection Agency Region 3, Environmental Science Center, Fort Meade,
Maryland
NRC Inspection Report No. 03007656/2022001

A routine announced inspection was performed by the Nuclear Regulatory Commission (NRC) on June 6, 2022, at the Environmental Protection Agency (EPA), Region 3, Environmental Science Center (ESC), located on the Fort Meade, Maryland, campus. The inspection was continued in-office until October 19, 2022. The inspection reviewed activities performed under NRC specific license number 19-14125-01, which authorizes the possession and use of Ni-63 sources in electron capture devices (ECDs) used in gas chromatographs.

The inspection determined that although no radioactive material was possessed under the NRC specific license, the licensee was without an NRC approved radiation safety officer (RSO) from October 2018 to August 24, 2022. Corrective and preventative actions included: 1) the Acting Facility Manager assumed responsibility for oversight of the licensed program; 2) the Acting Facility Manager took a vendor supplied RSO training course; and 3) EPA concluded that it was unlikely they would ever need to use the specific license and submitted a license termination request to NRC by letter dated August 24, 2022 (ML22284A069).

Based on the results of this inspection, one violation of NRC requirements was identified for the failure to maintain an NRC approved RSO on the license. Because EPA did not possess radioactive materials on the specific license during this period, the significance of the violation was determined to be low and was assessed at the SL IV level.

REPORT DETAILS

1. **Organization and Scope of the Program**

a. Inspection Scope

The Environmental Protection Agency (EPA) Region 3 Environmental Science Center (ESC), located on the Fort Meade, Maryland, campus, maintains a "Measuring Systems Gas Chromatograph" license. The inspector reviewed the organization and scope of the licensee's program through direct observations, reviews of records, and interviews with licensee staff.

b. Observations and Findings

EPA Region 3, ESC, Fort Meade, Maryland, possesses 11 electron capture devices (ECDs), each containing 15 millicuries of Ni-63. These ECDs are used in gas chromatographs to detect trace amounts of chemical compounds. All these devices were acquired under general licenses and none of the devices have been formally transferred to the NRC specific license in accordance with the process described in 10 CFR 31.5(c)(8). However, the EPA maintains the specific license if they ever need to expeditiously move a device to a temporary job site anywhere in the United States. Two authorized users periodically use the gas chromatographs and conduct source inventories and perform source leak tests.

The inspector contacted the individual listed as the RSO on the specific license by telephone and email. The individual reported that he transferred to NRC headquarters in October 2018, and no longer had oversight of activities performed under the specific license. During interviews, the Acting Facility Manager stated that when the individual listed as the RSO on the license left the program, another individual was assigned to assume the responsibility of the RSO but left the facility shortly thereafter. The Acting Facility Manager stated that the replacement of the RSO was not given a high priority because: 1) the ECDs are held and used under general licenses; 2) EPA did not possess any radioactive materials under the specific license; 3) the individual listed as the RSO on the license was still employed by EPA and could be contacted if necessary; and 4) the remaining staff had very little knowledge or appreciation for the NRC requirement to maintain an approved RSO on their specific license.

c. Conclusions

EPA Region 3, ESC, possesses 11 ECD each containing 15 millicuries of Ni-63. All of the devices are held under general NRC licenses and no licensed sources are possessed under the specific NRC license. Although the RSO listed on the specific NRC license continued to work for EPA and was available for consultation, he transferred to EPA headquarters in October 2018, and ceased to be involved in the specifically licensed program (See Section 3.0 of this report).

2. **Material Receipt, Use, Transfer, and Control**

a. Inspection Scope

The inspectors reviewed the material receipt, use, transfer, and control of the licensed program through direct observations, reviews of records, and interviews with licensee staff.

b. Observations and Findings

The Facility Manager stated that no specifically licensed sources are possessed or have been transferred to the NRC specific license and that no licensed activities have been conducted under the specific license. However, he emphasized that EPA continued to conduct source inventories, perform source leak tests, issue radiation dosimetry, and perform annual reviews of the licensed program. He stated that EPA maintains the specific license to give them flexibility to expeditiously move the devices to anywhere in the United States in the event of some special circumstances such as a local or national emergency.

The inspector visited the laboratories where the ECDs were used or stored and performed independent radiation surveys using a ThermoScientific RadEye G gamma survey meter, NRC serial number 30846, calibration due date: 1/13/2023. All exposure rate measurements, even on contact with the ECDs, were indistinguishable from background radiation levels (e.g., ~7 microR/h).

A review of dosimetry records showed that personnel exposures were low (e.g., typically non-detectable, and occasionally 1 – 3 mR per quarter). The Facility Manager stated that he believes the positive results were likely due to anomalies not associated with his program (e.g., dosimetry being x-rayed during transport).

The inspector examined each ECD and noted that each device contained a label/tag that communicated that receipt, possession, use, and transfer of the devices are subject to a general license. In addition, on October 12, 2022, the Facilities Manager sent an email (ML22286A034) confirming that each device contained required general license labeling.

The inspector observed that the ECDs were located in laboratories and access to the hallways leading to the laboratories was limited to only approved individuals and required use of programmed key cards.

The inspector reviewed records of source leak tests and inventories and found no issues. The inspector also reviewed a compilation of records which together represented annual reviews of the radiation protection program.

c. Conclusions

Although no licensed materials were possessed under the specific license, the licensee continued to perform source inventories, conduct source leak testing, issue dosimetry, maintain access controls, and perform program self-assessments.

3. **Failure to Maintain a Radiation Safety Officer**

a. Inspection Scope

The inspector reviewed the circumstances associated with and the safety impact of EPA Region 3, ESC's failure to maintain an approved Radiation Safety Officer on their specific NRC license.

b. Observations and Findings

Failure to Maintain a Radiation Safety Officer

When the inspector contacted EPA's ESC to schedule a routine NRC inspection, the inspector was informed that the individual listed as the RSO on Condition 11.b, Amendment 15, NRC License No. 19-14125-01, transferred to EPA Headquarters in Washington, DC, in October 2018, and left day-to-day oversight of the licensed program. During the onsite inspection, the Acting Facilities Manager stated that when the named RSO left the program, another individual was assigned to act as the RSO, but that individual left the Environmental Science Center shortly thereafter. The remaining staff, including the authorized users and the facilities staff assigned to oversee the program, were familiar with the general license requirements to conduct inventories and perform source leak testing, but they had very little knowledge or appreciation for the NRC requirement to maintain a RSO on their specific license. As a result, a new RSO was not assigned to oversee activities associated with the specific license.

Safety Impact of Failing to Maintain a Radiation Safety Officer

During the period when EPA's ESC was without a named RSO, the licensee did not possess any radioactive materials on their specific license. However, they did take steps to meet the general license requirements for leak testing and inventory, and they continued to perform annual self-assessments and issue dosimetry. Therefore, there were essentially no safety consequences associated with the failure to maintain a named RSO on the specific license. The Acting Facilities Manager stated that if they had needed to transfer a generally licensed source to their specific license, they could have engaged the individual listed as the RSO on the license because he is still an employee of the EPA.

Corrective & Preventative Actions

In response to the inspection finding, the Acting Facility Manager assumed responsibility for oversight of the licensed program and took a vendor supplied RSO course. However, prior to submitting a license amendment request to NRC, EPA concluded that it was unlikely they would ever need to use the specific license and decided to terminate the specific license. By letter dated August 24, 2022, EPA submitted a license termination request to NRC (ML22284A069).

c. Conclusions

One violation of NRC license requirements was identified. From October 2018 – August 24, 2022, EPA's ESC failed to maintain an approved RSO as required by Condition 11.B, Amendment 15, NRC License No. 19-14125-01. Because EPA did not possess

radioactive materials on the specific license during this period, the significance of the violation was determined to be low and was assessed at the SL IV level. Corrective and preventative actions included the following: the Acting Facility Manager assumed responsibility to oversee the license program, the Acting Facilities Manager completed a vendor supplied RSO course, and EPA submitted a license termination request to NRC.

4. Exit Meeting

On October 17, 2022, the inspector conducted an inspection exit meeting by telephone with EPA's ESC. The inspection findings including a violation for the failure to maintain an approved RSO on the license were discussed. The Acting Facilities Manager acknowledged the inspection findings and emphasized that no radioactive materials were possessed under the NRC specific license during the period when they were without an NRC approved RSO.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Individual(s) present at entrance meeting
* Individual(s) present at on-site inspection debrief
+Individual(s) present for telephonic exit meeting

#+* José J Jimenéz, Acting Facility Manager
Charles "Skip" Weisberg, Chief, Env. Safety & Health Programs Branch
(RSO listed on the Amendment 15 of the license)
#*+ Michael White – Facility Deputy Director
+John D. Curry, Chemist
Yaorong Qian, Chemist

INSPECTION PROCEDURES USED

IP 87126, Broad Scope Academic and Research & Development Programs

LIST OF ACRONYMS USED

CIRDA: Commercial, Industrial, R&D, and Academic (CIRDA) Branch
ECD: electron capture device
EPA: Environmental Protection Agency
ESC: Environmental Science Center
GL: general license
Ni-63: Nickle-63
NRC: Nuclear Regulatory Commission
RSO: Radiation Safety Officer