



Materials Inspection Report

1. Licensee/Location Inspected:

U.S. Geological Survey
Columbia Environmental Research Center
Center Director
4200 E. New Haven Road
Columbia, MO 65201

Report Number(s) 2022001

2. NRC/Regional Office

Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

3. Docket Number(s)

030-05146

4. License Number(s)

24-12728-01

5. Date(s) of Inspection

8/2/22 through 10/21/22

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:



1. Based on the inspection findings, no violations were identified.



2. Previous violation(s) closed.



3. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements, and were assessed at Severity Level IV, in accordance with the NRC Enforcement Policy.

A. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy were satisfied.

(Non-cited violation(s) was/were discussed involving the following requirement(s))

B. The following violation(s) is/are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
(Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE AND DATE
LICENSEE'S REPRESENTATIVE		
NRC INSPECTOR	Jason Draper, Health Physicist	Jason D. Draper Digitally signed by Jason D. Draper Date: 2022.11.09 12:26:13 -06'00'
BRANCH CHIEF		Michael A. Kunowski Digitally signed by Michael A. Kunowski Date: 2022.11.18 07:59:17 -06'00'



Materials Inspection Record

1. Licensee Name: U.S. Geological Survey - CERC		2. Docket Number(s): 030-05146		3. License Number(s) 24-12728-01	
4. Report Number(s): 2022001			5. Date(s) of Inspection: 8/2/22 with in-office review through 10/21/22		
6. Inspector(s): Jason Draper		7. Program Code(s): 03620		8. Priority: 5	9. Inspection Guidance Used: IP 87141
10. Licensee Contact Name(s): Venessa Velez, RSO		11. Licensee E-mail Address: vvelez@usgs.gov		12. Licensee Telephone Number(s): 573-441-2958	
13. Inspection Type: <input checked="" type="checkbox"/> Routine <input checked="" type="checkbox"/> Announced <input type="checkbox"/> Non-Routine <input type="checkbox"/> Unannounced		14. Locations Inspected: <input checked="" type="checkbox"/> Main Office <input type="checkbox"/> Field Office <input type="checkbox"/> Temporary Job Site <input type="checkbox"/> Remote		15. Next Inspection Date (MM/DD/YYYY): 08/02/2027 <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input type="checkbox"/> No change	

16. Scope and Observations:

This was an announced routine inspection of a federal research center authorized to use up to millicurie quantities of hydrogen-3, carbon-14, and phosphorus-33 at their facility in Columbia, primarily for research related to aquatic systems. At the time of the inspection, the licensee employed two radiation workers, and the licensee had not actively used licensed material since approximately November 2020, with the exception of consolidating and disposing of radioactive waste. While the licensee did not have any research activities using byproduct material currently planned, the RSO indicated that there could be additional use in the future.

During the inspection, the inspector toured the licensee's facilities, including designated byproduct material laboratories, storage areas, and waste consolidation areas in Buildings A3, C3, and the Chemical Storage Building, and performed independent area radiation surveys to verify ambient area dose rates were consistent with postings. The inspector interviewed the RSO regarding use of licensed material, training of radiation workers, contamination survey procedures, and waste handling and disposal. The inspector reviewed records associated with inventory tracking, employee training, and periodic radiation safety program reviews. The inspector also discussed with the RSO the requirements of 10 CFR 30.36(d) regarding decommissioning-related actions that need to be taken if the licensee ceases principal activities for an extended period of time.

The in-office review included a review of records not available at the time of the on-site inspection.

During the previous inspection (IR 2016001) a violation was cited for the licensee's failure to limit its possession of byproduct material to the materials authorized on its license when it possessed approximately 17 microcuries of cesium-137, which was not authorized by a specific or general license. During this inspection, the inspector verified that the licensee transferred the cesium-137 material to a licensee authorized to possess it and, to prevent recurrence, took steps to reduce the complexity of the radioactive material inventory and disposed of unwanted or unnecessary radioactive materials. Following these changes, the licensee amended its license to limit the possession authorization to only those materials the licensee expected to use. This violation is closed.

No violations of NRC requirements were identified as a result of this inspection.

From: [Jason Draper](#)
To: [Velez, Vanessa](#)
Subject: NRC 591M - USGS-CERC
Date: Friday, November 18, 2022 9:56:00 AM
Attachments: [NRC 591M - USGS-CERC jdmk.pdf](#)

Ms. Velez,

As we discussed during our phone call on October 21, 2022, attached is the inspection report for the routine NRC inspection that was performed of your facility in Columbia, Missouri, on August 2, 2022. Please review and keep this document for your records. There is no response required, though I would appreciate an email confirming that you have received the document. Let me know if you have any questions.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website 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 publicly available without redaction.

Jason Draper

Health Physicist (Inspector)

NRC / Region III / DRSS / MIB

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