



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

November 3, 2023

EA-23-059

Jessica Collins, BC-RN, BSN, LPC
Senior Director of Operations, Central Region
The Hospital of Central Connecticut
100 Grand Street
Administrative Offices
New Britain, CT 06050

**SUBJECT: THE HOSPITAL OF CENTRAL CONNECTICUT – NRC INSPECTION REPORT
030-01250/2023-001 AND NOTICE OF VIOLATION**

Dear Jessica Collins:

This letter refers to the announced inspection conducted on March 7-9, 2023, at your facilities in New Britain, Southington, and Plainville, Connecticut, with in office review through June 13, 2023. The preliminary inspection findings were discussed with you on-site on March 7 & 8, 2023, and a telephonic exit briefing was conducted with you on June 28, 2023. The NRC issued its inspection report on July 19, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23179A172¹) describing the findings and observations from the inspection, including six apparent violations of NRC requirements, one of which was considered for escalated enforcement. The accompanying letter offered you the opportunity to provide a written response to the NRC's findings, attend a Predecisional Enforcement Conference, or pursue Alternative Dispute Resolution.

Consistent with the above, you provided a written response to the NRC on August 18, 2023, and supplemented this response with a letter dated September 12, 2023 (ML23258A017 and ML23258A018, respectively). A final exit meeting was held on October 6, 2023, to provide you and your team the NRC's final results.

Based on the NRC's review of the observations of the onsite inspection, the in-office review that followed, and the information provided in your written responses, the NRC has determined that two Severity Level IV violations of NRC requirements occurred. In addition, one Severity Level IV problem was identified, consisting of four NRC requirements with a common root cause. These violations were evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at: <https://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding them are described in detail in the subject inspection report. The violations are being cited in the Notice because they were identified by the NRC.

¹ NRC Agencywide Documents Access and Management System (ADAMS) Accession Numbers listed in this report may be accessible using the hyperlink below with the associated ADAMS Accession Number inserted in place of the "ML" at the end. <https://www.nrc.gov/docs/ML>

These violations included the failures to: (1) monitor occupational exposure of an interventional radiologist; (2) assess occupational dose to twelve staff who had occupational duties outside of the Hospital of Central Connecticut that involved exposure to radiation; (3) ensure that byproduct material being decayed-in-storage had a physical half-life of less than 120 days and perform adequate monitoring of the byproduct material prior to disposal; (4) create and retain a record of each disposal of byproduct material via decay-in-storage; (5) confine the possession and use of byproduct material to the locations authorized in the license; and, (6) provide commensurate training to staff involved in the disposal of byproduct material via decay-in-storage.

The NRC has concluded that information regarding: (1) the reason for the violations; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already addressed on the docket in the NRC's inspection report dated July 19, 2023 (ML23179A172), and your letters dated: April 13, 2023 (ML23166A147 and ML23166A148), April 19, 2023 (ML23166A149), May 12, 2023 (ML23166A151), August 18, 2023 (ML23258A017), and, September 15, 2023 (ML23258A018).

Therefore, you are not required to respond to this letter unless the description therein 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 "Rules of Practice and Procedure," a copy of this letter and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room located at NRC Headquarters in Rockville, MD, and from the NRC's document 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.

If you have any questions regarding this matter, please contact Jason vonEhr of my staff at (610) 337-5256 or via electronic mail at Jason.vonEhr@nrc.gov.

Thank you for your cooperation.

Sincerely,

Anne DeFrancisco, Chief
Medical and Licensing Assistance Branch
Division of Radiological Safety and Security
Region I

Docket No. 030-01250
License No. 06-02388-01

Enclosure:
Notice of Violation

cc w/ enclosure:
J. Semancik, Director, Radiation Division
Connecticut Dept. of Energy and Environmental Protection
Janette Edwards, MPH, MBA, Vice President of Operations
G. Hisel, Radiation Safety Officer
G. Pavlonnis, Associate Radiation Safety Officer

THE HOSPITAL OF CENTRAL CONNECTICUT – NRC INSPECTION REPORT 030-01250/2023-001 AND NOTICE OF VIOLATION DATED NOVEMBER 3, 2023

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NOTICE OF VIOLATION

The Hospital of Central Connecticut
New Britain, CT

Docket No. 030-01250
License No. 06-02388-01

During an NRC inspection conducted on March 7-9, 2023, with in-office review through June 13, 2023, six violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 20.1502(a)(1) requires that each licensee shall monitor exposures to radiation and radioactive material at levels sufficient to demonstrate compliance with the occupational dose limits in 10 CFR Part 20. At a minimum, each licensee shall monitor occupational exposure to radiation from licensed and unlicensed radiation sources under the control of the licensee and shall supply and require the use of individual monitoring devices by adults likely to receive, in one year from sources external to the body, a dose in excess of 10 percent of the limits in 10 CFR 20.1201(a).

Contrary to the above, from at least March 24, 2021, through March 6, 2023, the licensee failed to monitor exposures to radiation and radioactive material at levels sufficient to demonstrate compliance with the occupational dose limits in 10 CFR Part 20. Specifically, the licensee failed to monitor a physician's exposure to radiation from radioactive materials and unlicensed radiation sources under the control of the licensee, and the subject physicians' reconstructed radiation exposures were in excess of the 10 CFR 20.1201(a)(1) 10 percent threshold to require monitoring.

This is a Severity Level IV violation (NRC Enforcement Policy Section 6.7.d).

- B. 10 CFR 20.1201(f) requires that the licensee shall reduce the dose that an individual may be allowed to receive in the current year by the amount of occupational dose received while employed by any other person.

Contrary to the above, in twelve instances from at least March 24, 2021, through March 6, 2023, the licensee failed to reduce the dose that an individual may be allowed to receive in the current year by the amount of occupational dose received while employed by any other person. Specifically, for twelve individuals who performed licensed activities under the NRC license, the licensee failed to assess all of the occupational dose received while the individuals continued their employment by other organizations, from which the individuals had duties that involved exposure to radiation.

This is a Severity Level IV violation (NRC Enforcement Policy Section 6.7.d).

- C. 10 CFR 35.92(a) states, in part, that a licensee may hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee monitors the byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding.

Contrary to the above, in numerous instances from at least March 24, 2021, through March 6, 2023, the licensee: (1) failed to ensure that byproduct material had a physical half-life of less than or equal to 120 days, prior to that byproduct material being decayed-

Enclosure

in-storage; and (2) failed to monitor the byproduct material at the surface before disposal and determine that its radioactivity could not be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding. Specifically, the licensee disposed of unknown radioactive isotopes via decay-in-storage before releasing them as non-radioactive waste, and that disposal occurred without monitoring using an adequate instrument at the surface of the material.

- D. 10 CFR 35.92(b) requires that the licensee retain a record of each disposal permitted under 10 CFR 35.92(a) in accordance with 10 CFR 35.2092.

10 CFR 35.2092 requires that the licensee shall maintain records of the disposal of licensed materials, as required by 10 CFR 35.92, for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the survey.

Contrary to the above, in numerous instances from at least March 24, 2021, through March 6, 2023, the licensee failed to create and retain a record of each disposal permitted under 10 CFR 35.92(a). Specifically, the licensee disposed of unknown radioactive isotopes and failed to create or retain a record regarding that disposal, including the specific items described in 10 CFR 35.2092.

- E. 10 CFR 30.34(c) requires, in part, that each licensee shall confine his possession and use of byproduct material to the locations authorized in the license.

License Condition 15 of NRC License No. 06-02388-01, Amendment No. 123, dated February 7, 2023, requires, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the application dated August 18, 2022, and subsequent letters dated November 22, 2022, and January 19, 2023, including any enclosures.

The application dated August 18, 2022, and subsequent letters dated November 22, 2022, and January 19, 2023, identify and describe the locations where radioactive materials will be stored.

Contrary to the above, in numerous instances from at least February 7, 2023, through March 6, 2023, the licensee failed to confine its possession and use of byproduct material to the locations authorized in the license. Specifically, the licensee stored radioactive materials in a room not identified in the license application or subsequent letters by the licensee as a location of storage.

- F. License Condition 15 of NRC License No. 06-02388-01, Amendment No. 123, dated February 7, 2023, requires, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, in the letter dated November 22, 2022.

The application dated November 22, 2022, requires, in part, that the Hospital of Central Connecticut shall develop and will implement and maintain written procedures for a program for training required under 10 CFR 19.12 for each group of workers, including (i) topics covered, (ii) qualifications of the instructors, (iii) method of training, (iv) method

for assessing the success of the training, (v) initial training, and (vi) annual refresher training.

Contrary to the above, from February 7, 2023, through March 6, 2023, the licensee failed to develop and implement and maintain written procedures for a program for training. Specifically, auxiliary staff in the Environmental Services Department were assessing and disposing of unknown radioactive isotopes and the licensee failed to provide commensurate training to handle, assess, survey, and dispose of this radioactive waste properly.

Violations C through F constitute a Severity Level IV problem (NRC Enforcement Policy Section 6.3.d).

The NRC has concluded that information regarding: (1) the reason for the violations; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance will be (was) achieved is already addressed on the docket in the NRC's inspection report dated July 19, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No.² ML23179A172), and your letters dated: April 13, 2023 (ML23166A147, ML23166A148), April 19, 2023 (ML23166A149), May 12, 2023 (ML23166A151), August 18, 2023 (ML23258A017), and September 15, 2023 (ML23258A018).

However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to otherwise respond, clearly mark your response as a "Reply to a Notice of Violation, (EA-23-059)," 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.

Your response, should you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room (PDR) or in the NRC's ADAMS, accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, it should, therefore, 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.

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

Dated This 3rd day of November 2023

² NRC Agencywide Documents Access and Management System (ADAMS) Accession Numbers listed in this report may be accessible using the hyperlink below with the associated ADAMS Accession Number inserted in place of the "ML" at the end. <https://www.nrc.gov/docs/ML>