

December 29, 2023

NRC's Document Control Desk,
Washington, DC 20555-0001

SUBJECT: Response to the Apparent Violations in Inspection Report No.
03008291/2023001(DRSS); EA-23-122. Radioactive materials license 21-01078-01

Dear NRC staff:

As requested, I left a voicemail message with Rex Edwards on December 28, 2023 informing him that we are providing a written response to your letter, dated December 21, 2023.

We are not contesting the apparent violations for failure to perform surveys and failure to control material not in storage. We do not wish to participate in a PEC.

The apparent violations stem from our disposal of a catheter bag containing residual technetium-99m in our normal (non-radioactive) waste stream on October 19, 2022. The trash was returned to our hospital after it set off radiation monitors at the incineration facility.

The reason or cause for the apparent violations are:

1. Human error
 - a. Nursing staff emptied the catheter bag in the sanitary sewer system and then disposed of the catheter bag in the normal trash.
 - b. Environmental Services staff did not notice or ignored the radiation alarm on our trash dumpster and added the trash bag containing the residual radioactivity to the dumpster; and
2. Equipment failure
 - a. The trash dumpster and the platform that leads to the dumpster was changed in June of 2022. The new platform is wider than the previous platform. This change may have created a larger distance of the trash bag from the detector and therefore reduced the sensitivity of this detector.

The corrective steps that have been taken are:

1. We added a second radiation detector system that has two detectors – one on each side of the platform. This has increased our sensitivity to detect extremely small quantities of radioactive material. This also provides redundancy since we now have two radiation detection systems.

2. The new radiation detection system is set in latch mode. Once the alarm is triggered it will remain in alarm mode until the reset button is pressed. The reset button is in an enclosure that requires supervisor access so that only approved staff can reset it.
3. We have trained appropriate staff from the hospital and from Mary Free Bed, a co-located hospital who also use hospital dumpsters, to ensure that the staff will respond appropriately in accordance with hospital procedures if they hear a radiation alarm.
4. We have added a warning in our patient medical record system to notify the nursing staff that the patient and his/her urine is radioactive and proper disposal of items contaminated with urine need to be followed.

The results achieved are:

1. No radioactive items have been rejected by the incineration facility.
2. All radioactivity has been stored for decay prior to disposal.

Since we have been very thorough in our corrective actions, we do not plan to take any new corrective steps to avoid further violations related to disposal of radioactive material.

Full compliance was achieved on January 4, 2023, with the installation of a new Ludlum 375-20 control and two detectors. The previous system is still installed and active. Verified functionality using a Cs-137 check source.

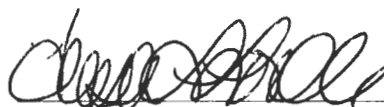
I want to confirm that all patients were released in accordance with 10 CFR 35.75.

If you have any questions regarding this investigation, please contact Dale Schippers at dale.schippers@trinity-health.org or call 616-685-6744.

Sincerely,

Dale Schippers

Dale Schippers, M.S., DABR
Medical Physicist/RSO



Teresa Lalonde
Director of Radiology

cc:

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