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UNPLANNED CONTAMINATION DUE TO A PIPE CRACK - Event Number: 41993

This report is being submitted as required in 10 CFR § 20.2203 within 30 days after learning of the following incident.

At approximately 2:45 p.m. on September 13th staff from the VCU physical plant arrived at VCU's Radiation Safety Offices inquiring about a possible sink leak in Radiation Safety's laboratory area. Radiation safety staff accompanied the physical plant personnel to the B-3 equipment room of Sanger Hall to assist in the investigation into the leak.

The leak was at an elbow joint over the number #2 air handler. An initial reading with the GM pancake of 20,000 cpm indicated that this was the line from the sink in radiation safety used to dispose of water-soluble research wastes. The unit was immediately shut down and further surveyed. Radiation Safety Staff moved to secure the area, contain the water present on the floor and secure the scene to ensure no one left the scene without being monitored.

Subsequent surveys showed contamination levels from 500-20,000 cpm outside and inside the air handler with contributions from P-32, S-35, I-125, Cr-51, Fe-55, C-14 and H-3. Waste disposal records kept by radiation safety clearly indicated that all of the radionuclides had been disposed of via the sanitary sewage system in the last 30 days. On September 14th the event was reported to the NRC Operations Center.

Initial surveys of the air handlers exhaust system and bioassay of the individuals who routinely work in this area did not reveal any detectable levels of radioactivity. More extensive surveys of the mechanical space indicated that the contamination was limited to the area of the spill. No contamination was found in any of the common entrance areas to the mechanical space.

On September 21st Stephen Hammann from the NRC's Region I and James deKrafft from the State Radiological Health Division arrive. After reviewing the situation and gathering some information Mr. Hammann called the Regional Medical Licensing Supervisor and discussed the situation with her. Mr. Hammann and Mr. DeKrafft closed the review by indicating that they were both satisfied with the University's response and would expect a situation report to be filed within 30 days as required by the regulations.

Presently the University has engaged RSO, Inc. to assist in the decontamination of the area around the air handler and the unit itself. As of today the external decontamination has been completed and we have begun disassembling, deconning or disposing of the contaminated components of the air handler. All sampling done to date still confirms that the contamination was limited to the area around the unit and the unit itself. Based on these measurements it is unlikely that anyone was exposed to notable radiation levels or significant fixed or airborne contamination.

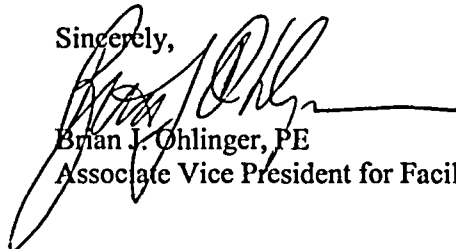
To prevent future occurrences we have moved our routine disposal to a line in the radiation safety cold room which enters directly into the building major discharge line and does not cross over any significant mechanical air handling systems. We have reviewed this situation with the physical plant staff and clearly

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marked this pipe at numerous locations to ensure personnel who work in the area are clear on which pipe may be carrying radioactive wastes. We immediately altered our weekly survey procedures for radiation safety to include a visual inspection of this sewer line being used in the mechanical space.

If you have any question regarding this report please contact VCU's Radiation Safety Officer, Dr. Dean Broga at (804) 828-5877.

Sincerely,



Brian J. Ohlinger, PE
Associate Vice President for Facilities Management

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