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March 16, 2017

Director, Office of Nuclear Material Safety and Safeguards
ATTN: GLTS,
U.S. Nuclear Regulatory Commission,
Washington, DC 20555-0001

The University of Wyoming (USNRC Byproduct Materials License 49-09955-10) is providing this report, in accordance with 10 CFR 31.5(c)(5).

On February 22, 2017, the University Radiation Safety Officer (RSO) determined that a generally licensed radioactive source owned by the University had removable contamination in excess of the quantities permitted by the Nuclear Regulatory Commission (NRC). The source is a 10 millicurie Ni-63 electron capture detector (ECD), source number 623048, from a Shimadzu Scientific Instruments Inc. gas chromatograph, model GC-2014.

Previously, because the gas chromatograph had not been operating properly, Shimadzu had authorized the return of the electron capture detector for servicing. The date of the return shipment coincided with the due date for the semi-annual source leak test. The wipe was performed by the University RSO and counted on the departmental Beckman liquid scintillation counter. The results of the wipe test indicated removable contamination of 0.0217 microcuries.

The University took the following actions to ensure that the premise and environment are acceptable for unrestricted use:

- 1) On February 23, 2017, the University RSO conducted wipe tests of the gas chromatograph inside (the column adapter, the ECD housing, the oven surfaces) and outside (the ECD vents, and the areas behind the gas chromatograph where the vent exits the instrument. The column adapter (which is inserted into the ECD) had removable contamination of 0.00313 microcuries. No removable contamination greater than the acceptable levels was found on any of the other surfaces.
- 2) On February 23, 2017 the RSO notified Shimadzu of the leak test results and confirmed the authorization to return the source.
- 3) On March 1, 2017, the electron capture detector was shipped to Shimadzu Scientific Instruments (Maryland Department of Health radioactive materials license MD-27-011-01). It was received by Shimadzu on March 3, 2017.
- 4) The column adapter was sealed in a plastic bag and labeled as contaminated with radioactive materials. A decision has not yet been made whether the adapter will be replaced (and disposed of in accordance with applicable law) or if the adapter will be decontaminated in accordance with applicable law and Shimadzu requirements.

Please do not hesitate to contact us if you require more information regarding this notification.

Sincerely,

Jim F. Herrold, CHP
Radiation Safety Officer