



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT
NATIONAL RISK MANAGEMENT RESEARCH LABORATORY
CINCINNATI, OHIO 45268

December 28, 2018

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

Dear Sir or Madam:

The United States Environmental Protection Agency is providing this report in accordance with 10 CFR 31.5(c)(5). On December 20, 2018 the EPA Cincinnati Radiation Safety Officer (RSO) completed leak testing of a sealed source electron capture device (ECD) from a gas chromatograph (GC) at the EPA's Andrew W. Breidenbach Environmental Research Center. The ECD was Shimadzu ECD Model 2014, Serial #2147. The ECD was obtained under a general license. The ECD had been leak tested every six months with the last test performed on 07/06/2018 with all prior results showing less than 0.005 microcuries of removable contamination. Leak test results on December 20, 2018 showed 0.027 microcuries of removable contamination at the vent port of the ECD.

The ECD was removed from the instrument, ports capped, and the ECD was placed in a sealed bag. The ECD has been transferred to the EPA Cincinnati radiation safety laboratory for storage pending return to the manufacturer for disposal. The area surrounding the gas chromatograph was isolated. Wipe surveys were performed to include the interior oven of the GC, upper surface of GC surrounding the ECD location, the counter in front, to the sides, and behind the GC, as well as wires/tubing near the ECD vent port. Results showed all tested surfaces were less than 100 dpm/ 100 cm².

The ECD shall be transferred to the manufacturer or to another person authorized to receive the device by a specific license for disposal per 10 CFR 31.5(c)(8). EPA Cincinnati shall continue to monitor all remaining ECDs every six months as required.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen E. Musson".

Stephen E. Musson
Radiation Safety Officer
U.S. EPA Office of Research and Development
Cincinnati, Ohio

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