



January 6, 2017

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

Dear Director,

Micron Technology Inc., identified a Ni-63 leak during required 6-month periodic sealed source wipe testing on an ion mobility spectrometer (IMS) manufactured by Particle Measuring Systems (PMS). The PMS spectrometer is a model AirSentry II, serial# 105478, containing a 15 mCi Ni-63 source, serial# 5127. The IMS unit was located in the Building 80 Mask cleanroom on the Micron Technology, Inc., campus at 8000 S. Federal Way, Boise, Idaho.

The wipe was taken on the unit 12/9/2016, and upon receiving the results on 12/27/2016, results were over the NRC established 0.005 microcurie levels. Levels were found at 0.014 μCi of removable contamination located in the vacuum port.

All prior tests, including the most recent done on 6/28/2016, showed no detectable ($\leq 2.86 \times 10^{-6} \mu\text{Ci}$) removable contamination. All wipe testing is done according to the manufacturer's Radiation Safety and Wipe Test Procedures.

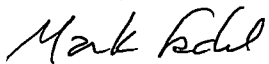
Upon notification of the leak on 12/27/2016, the IMS unit was promptly powered down and isolated from the vacuum and compressed air systems. Using a survey meter, the contamination was determined to be limited to the IMS vacuum port and end of the vacuum tubing connected to that port. All other readings in the area and downstream inside the vacuum system showed no detectable radiation levels (i.e., the end of the vacuum tubing connected to process vacuum pipe; process vacuum pipe and shut-off valves; pipe, valve and "T" connection into process vacuum main header; and the IMS support tray including surrounding areas).

For isolation and containment purposes, the IMS unit and vacuum tubing were put in double plastic bags, sealed, labeled, and placed in a secure area. Micron Technology has contacted the manufacturer of the unit, PMS, and is awaiting further direction for the proper return of their equipment.

The premise and environment where the unit was located is currently acceptable for unrestricted use by Micron Technology team members and employees. The determination of acceptability was based on: the source of the radiation and contained location, as well as sampling results (non-detect) of the surrounding area to include downstream of the tool (see above). The timeline below indicates Micron Technology Industrial Hygiene sampling protocol that was conducted to 1. Contain the leak source and 2. Ensure the leak was an isolated event.

Date	Action
12/9/2016	Conducted semiannual wipe of IMS Ni-63 B80 unit
12/16/2016	Wipe sent to BHP Enterprises for lab analysis
12/26/2016	BHP Enterprises contacted Micron's radiation safety officer (RSO)
12/27/2016	RSO contacted BHP. RSO shut down the immediate area where the IMS was located and began surveying the general area for contamination.
12/28/2016	Additional surveys completed downstream of the vacuum system. Associated vacuum lines were isolated, disconnected, and interiors either directly surveyed or swabbed and swabs surveyed with Ludlum Model 3 meter with model 44-9 "pancake" probe (meter s/n 64037 and probe s/n PR114264 calibrated 7/7/2016).

Sincerely,



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