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October 9, 2019
GO2-19-144

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

Subject: **NUCLEAR REGULATORY COMMISSION NOTIFICATION FOR LEAKING
NICKEL-63 ELECTRON CAPTURE DETECTOR SOURCE**

Dear Sir or Madam:

In accordance with the general license reporting requirements of Title 10 Code of Federal Regulations (CFR) Part 31.5(c)(5) and Washington Administrative Code 246-233-020(3)(e), Energy Northwest Environmental Services Laboratory is providing notification of leaking Nickel-63 (Ni-63) sealed source(s) contained in an Agilent Technologies Gas Chromatograph (GC) Electron Capture Detector (ECD) instrument.

The leaking source was identified during a routine semi-annual leak testing surveillance conducted on September 9, 2019. The sample results from the routine leak testing surveillance were completed on September 11, 2019, and indicated the presence of 0.234 microcuries (source #15-263) and 0.0724 microcuries (source #00-006) of removable radioactive material on the outer surfaces of the ECD cell assemblies. Operation of the GC ECD was immediately suspended and the issue was documented in the Energy Northwest corrective action program by a Health Physics Supervisor.

Energy Northwest Health Physics staff implemented follow-up actions which included additional surveys of the GC ECD and laboratory area on September 11, 2019. The GC ECD instrument was sealed inside a labeled radioactive material bag and is stored in a locked laboratory space pending further investigation. The laboratory area was cleaned on September 12, 2019, and an additional set of smears were collected. The follow-up surveys and smears collected on September 12, 2019, showed no detectable contamination in the laboratory and document that the premises and environs are acceptable for unrestricted use as defined in 10 CFR 20.1402.

The GC instrument is configured with two general license micro ECDs; a Hewlett-Packard model G2397-65505 ECD, serial number U2055, containing 15 millicuries of Ni-63 (source #00-006) and an Eckert and Ziegler model G2397-65505 ECD, serial number U26700, containing 15 millicuries of Ni-63 (source #15-263). Further characterization of the ECDs is in progress to verify which of the two sources is leaking. Energy Northwest intends to transfer the ECDs to Agilent Technologies for replacement and proper disposal of the Ni-63 source(s).

If you have any questions regarding this notification, please contact Mr. Brad C. Barfuss at (509) 377-8462.

Respectfully,



Brent J. Ridge
Vice President, Corporate Services
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cc: L. Albin (WDOH)