



**Radioactive Materials Unit
625 Robert Street North
PO Box 64975
St. Paul, MN 55164-0975**

Date: March 24, 2009
To: All Minnesota Department of Health Fixed and Portable Gauge Licensees
From: Radioactive Materials Unit
Subject: Contamination Resulting from Damage to Sealed Sources during Gauge Dismantlement and Non-Routine Maintenance Operations

Information Notice 2009-02

The Minnesota Department of Health (MDH) is issuing this Information Notice to inform licensees about contamination resulting from damage to sealed sources. MDH expects that recipients will review the information for applicability to their facilities and consider appropriate actions to avoid similar incidents.

The Nuclear Regulatory Commission (NRC) has recently reported events that have occurred during gauge dismantlement or non-routine maintenance operations that involved the handling or removal of sealed radioactive sources. During these events, sealed radioactive sources were damaged or ruptured, leading to both facility and personnel contamination.

Common causal factors have been identified in the events that may have contributed to the damage to the radioactive sources, the subsequent release of radioactive material and the resultant contamination of licensee facilities and personnel. These have been identified as follows:

1. Dismantling/disassembling gauges or performing non-routine maintenance of devices was based on intuition rather than on a review of the information contained in the sealed source and device registry (SS&DR) safety analysis or other information available from the source or device manufacturer or vendor.
2. The deteriorated condition of the gauges and/or radioactive sources at the time of dismantlement/disassembly was not taken into consideration by personnel that were handling the sources or devices.
3. In the absence of specific information about the configuration of the radioactive sources within the gauges or devices, licensees did not develop, document, and implement their own procedures to perform the dismantlement or non-routine maintenance activities.

This Information Notice should serve as a reminder that dismantling/disassembling of gauges requires specific MDH authorization. In addition, licensees must exercise caution when performing licensed activities that involve the handling or removal of sealed radioactive sources in gauges or devices.

When developing procedures, licensees should consider conducting dismantlement/disassembly and other non-routine maintenance activities in a deliberate, stepwise manner, including conducting routine monitoring for radioactive contamination to promptly detect potential problems. Additionally, procedures should take into consideration actions that might be necessary to mitigate the consequences of radioactive source damage/rupture incidents.

Licensees might remain mindful that a successful training program should thoroughly familiarize employees with actions to take to limit the spread of contamination within licensee facilities and actions to take to successfully decontaminate personnel. A training program would help employees recognize actions that may be necessary to prevent the spread of radioactive contamination into the public domain or when it would be appropriate to seek external assistance.

This Information Notice requires no specific action or written response.