



June 6, 2008

U.S. Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

This report is a follow-up report to Event Report #44126, which was initiated by telephone on 5/9/07. This event was reported due to the inability to locate two samples of radioactive material during the annual physical inventory at Dow Chemical's Midland, Michigan site. The samples that were not located are:

- 1.1 mCi of C-14 in Methylene Bisphenyl Isocyanate (Dow tracking number RMR 631)
- 9.0 mCi of C-14 in Dipropylene glycol dimethyl ether (Dow tracking number RMR 652)

This incident was reported per 10 CFR 20.2201.

The current status of this event is as follows:

- The samples have not been located.
- Additional searches of the laboratories have not found the missing samples.
- A review of waste inventory records showed that there was one waste pack disposed of between the 2007 and 2008 physical inventories that contained sufficient activity to contain the 9 mCi sample. The activity in this waste pack could not be directly accounted for through records of disposal of other inventoried solutions of radioactive material. There were records of a number of waste packs that could have contained the 1.1 mCi sample.

Although no record could be located to indicate that these samples were disposed of in waste shipments, the most plausible explanation of the lost material is that the samples were disposed of through the normal waste disposal process without the proper paperwork being completed to document this disposal.

The following corrective actions have been taken or planned to prevent recurrence of this type of event:

- A Radio-frequency identification (RFID) system has been implemented to improve the tracking of all of our inventoried solutions. All inventoried solutions now are labeled with an RFID tag. This identification method will be used on all future physical verifications of our inventoried radioactive materials.
- Access to keys to open storage refrigerators and freezers that contain inventoried radioactive materials has been restricted to a small number of individuals per refrigerator/freezer. Prior to this change, storage refrigerators and freezers were locked, but all authorized users of radioactive materials had access to the keys to open the storage units.

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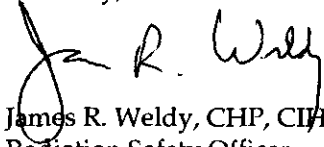
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- Refresher training on the proper documentation of use, transfers, and disposal of inventoried solutions of radioactive material will be included during this year's annual refresher training for loose isotope users.
- New policies on the storage of samples of radioactive material will be implemented to reduce the number of samples that are maintained in long-term storage.

There is no reason to believe that any worker or member of the public experienced an exposure due to this incident.

Please contact me if you have any questions.

Sincerely,



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