

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF WASTE, AIR AND RADIATION MANAGEMENT
BUREAU OF RADIATION PROTECTION
HARRISBURG, PA 17101

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BRP INFORMATION NOTICE 2011-02

RECENT EVENTS INVOLVING PORTABLE
NUCLEAR GAUGES

ADDRESSEES

All portable nuclear gauge licensees

PURPOSE

The Department of Environmental Protection (DEP) is issuing this information to alert all portable nuclear gauge licensees of recent incidents involving violations of radiation safety requirements, license conditions, and U.S. Department of Transportation (DOT) hazardous material regulations.

BACKGROUND

During 2010 DEP inspectors observed numerous violations of DEP and DOT regulations by portable nuclear gauge licensees in the following program areas:

- Physical Security
- Hazardous Materials Transportation
- Radiation Protection

In some cases licensees had multiple violations and in the most serious case DEP inspectors cited one licensee for 16 separate violations. In one case multiple violations resulted in a combined civil penalty of \$17,000. Specific recurring problem areas are listed in the discussion below; however, this list is not all inclusive. It is expected that licensees will review their programs and practices to prevent similar violations.

DISCUSSION

Physical Security Violations

- Failure to provide a minimum of two physical barriers to properly secure portable gauges. In one case unauthorized users were permitted unescorted access to the outer room where the portable gauges were stored. Security to the gauges was reduced to a single lock.

Hazardous Materials Transportation Violations

- Failure to provide the proper shipping name on the Bill of Lading.
- Failure to provide an adequate description of the hazardous material that was listed on the Bill of Lading. Specifically, the Bill of Lading was not listed in the proper sequence.
- Failure to include the activity of the radioactive material in SI units (e.g., Bq, MBq, etc.) on Bill of Lading and the customary units (e.g., mCi) were not in parentheses following the SI Units.

- Failure to store shipping papers per 49 CFR 177.817(e) at temporary job sites. In one example the Bill of Lading was stored in the visor of the vehicle when the vehicle was unattended. The user also indicated that the papers were stored in the same location during transport.
- Failure to maintain legible markings and labels on the package. Specifically, the markings labels, and UN identification number on the package in the truck were worn and unreadable at the temporary job site.
- Failure to provide documentation of packaging testing for the Type 7A packages.
- Failure to maintain current copies of the IAEA Certificates of Competent Authority for both the Cesium and Americium sources contained in all portable gauges.
- Failure to provide hazardous materials training as required by 49 CFR 172.704 (c)(2) to all authorized users at least once every three years and maintain documentation of such training.

Radiation Protection Violations

- Failure to maintain a copy of the latest sealed source leak test for portable gauges at temporary job sites.
- Failure to perform a proper radiation survey and evaluation to ensure that the dose to members of the public is within regulatory limits.
- Failure to ensure that workers receive radiation protection training required by 10 CFR 19.12 and to maintain required documentation of such training.
- Failure to conduct program evaluations or audits on an annual basis and maintain documentation of such audits or evaluation.
- Failure to provide notification per 10 CFR 30.34(c) for changing locations of storage and use.

Licensees are responsible for compliance with physical security, radiation safety and hazardous materials shipping requirements. If licensees are unsure of specific areas of compliance there are a number of technical resources available. While the DEP cannot endorse any particular resource, most portable nuclear gauge manufacturers can offer some form of technical assistance and training to help ensure compliance with regulatory requirements.

CONTACT

This Information Notice requires no specific action or written response. Please direct any questions about this matter to the technical contact listed below.

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