

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## NUCLEAR REGULATORY COMMISSION

### 10 CFR Part 30

RIN 3150-AH06

### Security Requirements for Portable Gauges Containing Byproduct Material

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations governing the use of byproduct material in specifically licensed portable gauges. The proposed rule would require a portable gauge licensee to provide a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauges are not under the control and constant surveillance of the licensee.

**DATES:** The comment period expires October 15, 2003. Comments received after this date will be considered if it is practical to do so, but the NRC is able to assure consideration only for comments received on or before this date.

**ADDRESSES:** You may submit comments by any one of the following methods. Please include the following number (RIN 3150-AH06) in the subject line of your comments. Comments on rulemaking submitted in writing or in electronic form will be made available to the public in their entirety on the NRC rulemaking Web site. Personal information will not be removed from your comments.

Mail comments to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attn: Rulemakings and Adjudications Staff.  
E-mail comments to: [SECY@nrc.gov](mailto:SECY@nrc.gov). If you do not receive a reply e-mail confirming that we have received your comments, contact us directly at (301) 415-1966. You may also submit comments via the NRC's rulemaking

website at <http://ruleforum.llnl.gov>. Address questions about our rulemaking website to Carol Gallagher at (301) 415-5905; e-mail [cag@nrc.gov](mailto:cag@nrc.gov).

Hand deliver comments to 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. Federal workdays. (Telephone: (301) 415-1966).

Fax comments to: Secretary, U.S. Nuclear Regulatory Commission at (301) 415-1101.

Publicly available documents related to this rulemaking may be examined and copied for a fee at the NRC's Public Document Room (PDR), Public File Area O1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. Selected documents, including comments, can be reviewed and downloaded electronically via the NRC rulemaking website at <http://ruleforum.llnl.gov>.

Publicly available documents created or received at the NRC after November 1, 1999, are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/NRC/ADAMS/index.html>. From this site, the public can gain entry into the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC's PDR Reference staff at 1-800-397-4209, 301-415-4737 or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

#### FOR FURTHER INFORMATION CONTACT:

Lydia Chang, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6319, e-mail [lwc1@nrc.gov](mailto:lwc1@nrc.gov).

#### SUPPLEMENTARY INFORMATION:

#### Background

##### *Uses of Licensed Material in Portable Gauges*

Portable gauges are devices containing licensed material that are used to determine physical properties (such as density and moisture content of soil, concrete, and other materials) in a field setting. The most typical portable gauges in use today contain two encapsulated sources of radioactive materials. The first is a sealed gamma source containing 0.30 to 0.37

gigabecquerels (8 to 10 millicuries) of cesium-137 (Cs-137) used to measure density. The second source is a sealed neutron source containing 1.48 to 1.85 gigabecquerels (40 to 50 millicuries) of americium-241/beryllium (Am-241/Be) used to measure moisture content. Other radioactive materials have also been used in portable gauges. Under the Atomic Energy Act of 1954, as amended, NRC regulates byproduct, source, and special nuclear material used in portable gauges. NRC does not, however, regulate naturally occurring radioactive material such as radium-226 (Ra-226) used in portable gauges because it is not a byproduct, source, or special nuclear material. Gauges containing Ra-226 may be regulated by individual States.

Portable gauges are of many different designs based on their intended use. Two basic methods of measuring the property of materials with these gauges are direct transmission and backscatter. For the direct transmission method, the source is located on a source rod. When the gauge is in use, the rod is extended and inserted beneath the surface material through an access hole. Radiation emitted by the source beneath the surface material is measured by a detector in the base of the gauge. For the backscatter method, both the source and the detector remain on top of the surface material to be tested. Radiation is directed into the surface and some is reflected back to the gauge detector by the surface material.

When not in use, portable gauges are generally stored in a permanent storage location within a licensed facility. However, portable gauges are often also stored at a temporary jobsite if the job requires more than one day. When transporting a portable gauge from a licensed facility to a temporary jobsite in a vehicle, the gauge is often placed in a transportation case, and then is secured in or onto the vehicle. Sometimes, portable gauges are stored at a temporary storage location or on a vehicle.

#### *NRC and Agreement States Licenses*

As authorized by section 274(b) of the Atomic Energy Act of 1954, as amended, 32 States have assumed responsibility for regulating certain activities related to radioactive material by entering into agreements with the NRC. The activities regulated by these "Agreement States"