



August 2006

**Bureau of Radiation Control  
RADIOACTIVE MATERIALS SECTION  
Information Notice 2006-02**

***Leak testing frequency for Troxler portable nuclear gauging devices***

The Florida Bureau of Radiation Control was recently informed of a change in the leak test frequency interval for certain Troxler Electronic Laboratories, Inc., portable nuclear gauging devices. The change increases the leak test frequency interval from 6 to 12 months, for the gauge models specified in the table below.

We are asking licensees who have these devices and wish to change their leak test frequency intervals **NOT TO EXCEED 12 MONTHS** to submit an amendment request describing each device along with an updated copy of their Leak Test Procedures. Licensees may adopt our Model Leak Test Procedures which we have enclosed along with this Information Notice.

| MODEL  | NUCLIDE                    | MAXIMUM ACTIVITY          | REGISTRY NUMBER |
|--|----------------------------|---------------------------|-----------------|
| 3216   | 241Am:be                   | 44mCi                     | NC-646-D-126-S  |
| 3241-C<br>3241-G   | 241Am:be                   | 330mCi or 110mCi          | NC-646-D-128-S  |
| 3242   | 252Cf                      | 110 µCi                   | NC-646-D-135-B  |
| 3400 Series<br>(3430, 3430-M, 3440, 3440-M,<br>3450*, 3451*)   | 137Cs<br>241Am:be<br>252Cf | 9 mCi<br>44 mCi<br>66 µCi | NC-646-D-130-S  |
| 4232   | 252Cf                      | 110 µCi                   | NC-646-D-137-S  |
| 4301<br>4302   | 241Am:be                   | 11 mCi                    | NC-646-D-134-S  |
| 4430   | 241Am<br>252Cf             | 11 mCi<br>66 µCi          | NC-646-D-136-S  |
| 4640<br>4640-B   | 137Cs                      | 9 mCi                     | NC-646-D-131-S  |
| Notes:*The 3450 and 3451 were previously listed under NC-646-D-138-S<br>**The 3430-M and 3440-M use the 252Cf neutron source and not 241 Am:be |                            |                           |                 |

Please remember to submit your request in triplicate as required by 64E-5.207(1), Florida Administrative Code. Allow approximately 30 days to amend your radioactive material license once all necessary information has been submitted. If you have any questions, please contact our office at (850) 245-4545.

# **LEAK TESTING PROCEDURE**

Each sealed source contained in a portable gauge must be tested at regular intervals to ensure that the radioactive material is secure within its capsule and not leaking contamination. Leak test (LT) requirements are specified in section 64E-5.1303, Florida Administrative Code.

## **I. Leak Test Frequency**

- ◆ CPN International, Inc. gauges will be leak tested at least every 12 months.
- ◆ Troxler Electronic Laboratories, Inc., Model 3216, 3241-C, 3241-G, 3242, 3430, 3430-M, 3440, 3440-M, 3450, 3451, 4232, 4301, 4302, 4430, 4640, 4640-B gauges will be leak tested at least every 12 months.
- ◆ All other nuclear gauges will be leak tested at least every 6 months.

## **II. Leak Test Kit**

Only LT kits provided by licensed LT vendors will be used to sample (smear) sealed sources contained in portable gauges.

## **III. Taking the Leak Test Sample**

LT samples will be taken only by Authorized Users, wearing their assigned personnel monitoring badges. LT samples will be taken in accordance with the written instructions provided by the supplier of the LT kit and the gauge manufacturer.

## **IV. Leak Test Sample Analysis**

LT sample analysis will be performed only by vendors specifically licensed to provide the service by the Florida Bureau of Radiation Control, the U.S. Nuclear Regulatory Commission, or other state radiation control agencies.

## **V. Leak Test Records**

If a test indicates a gauge's sealed source is contaminated, the gauge will be removed from service and the Florida Bureau of Radiation Control will be notified immediately (407/297-2095). A written report on the leaking source will be submitted to the Bureau within 5 days (mailing address: FL Bureau of Radiation Control, Radioactive Materials Program, Bin C21, 4052 Bald Cypress Way, Tallahassee, FL 32399-1741). The report will describe the equipment involved, the test results, and the corrective actions taken (i.e., gauge removed from service until repaired; radiation surveys conducted to determine presence of contamination; decontamination as necessary).

Leak test records will be retained for 3 years for inspection purposes. The records will include the following information:

- ◆ Each source's manufacturer name, model, and serial number;
- ◆ The identity of each sealed source radionuclide and its estimated activity, expressed in microcuries (or becquerels);
- ◆ The measured activity of each leak test sample, in microcuries (or Bq);
- ◆ The date the sample was collected; and
- ◆ The signature of the Radiation Safety Officer (or the RSO's designee).