APPENDIX K

TRANSPORTATION OF GAUGES

The U.S. Department Of Transportation establishes requirements for the transportation of radioactive material. Licensees are responsible for ensuring that their gauges are properly packaged, marked, labeled, and secured, and that proper documentation accompanies the gauges.

A. General

Markings and labels on gauge transport containers must be durable, legible, in English, and printed on or affixed to the package surface (e.g., a label, tag or sign).

Required **markings** include:

- Shipping name (ex.: radioactive material, special form, n.o.s., Class 7)
- Identification number (ex.: UN 2974)
- Package type (ex.: TYPE A)
- RQ (if applicable)

B. Markings and labels

Required **labels** include:

- "Cargo Aircraft Only" label (required for shipments by air)
- Two DOT warning labels (gauges typically require RADIOACTIVE YELLOW II labels; see table) applied to opposite sides of the package, listing the package contents and activity in SI and customary units, and the package's Transport Index (TI), the dimensionless number indicating the package's radiation level at 1 meter (manufacturers provide the TI for their gauges)

Package Labeling Criteria

Warning Label	Max. Rad. Level at Package Surface (mR/hr)	Max. Rad. Level at 1 m (TI)
RADIOACTIVE WHITE I	0.5	none
RADIOACTIVE YELLOW II	50	1
RADIOACTIVE YELLOW III	200	10

C. Shipping papers

The information required on shipping papers depends on the type of shipment being made. Transporting gauges in company vehicles (without any transfers) can be exclusive use shipments, which require minimal information on the shipping paper (commonly known as a "bill of lading"). Gauges shipped by common carrier to the manufacturer or another recipient require additional information. Gauges shipped by air or internationally require still more information.

1. **Exclusive use shipments** (shipments to and from job sites) require a bill of lading with the information listed below. The shipping paper must be immediately accessible to the driver during transport.

    - Description of shipment [proper shipping name, RQ (if applicable), identification number, hazard class, type of package, name and activity of each nuclide, category of labeling and Transport Index)

    - Emergency response telephone number (24-hour monitored number of a person knowledgeable about the hazards associated with portable gauges)

2. **Common carrier shipments MOST COMMON PROCEDURE FOR FIXED GAUGE LICENSEES** (shipments offered to third parties for transport) require a bill of lading with the information listed below, if the shipment is made by highway. If shipped by air, the carrier will provide a "Dangerous Goods Airbill" that will describe the required information.

    - Name and address of shipper [can be the *consignee* (company offering the package for shipment) or the *consignor* (company shipping the package)]
    - Description of shipment (same as for exclusive use shipments)
    - Emergency response telephone number (24-hour monitored number of a person knowledgeable about the hazards associated with portable gauges)
    - Shipper's certification (statement certifying that the package has been properly classified, described, packaged, marked and labeled, and is in proper condition for transportation)
    - Signature of shipper (commits the signor to certification of the shipment)

3. **Emergency response information (ERI)** will be provided with the bill of lading and will be immediately accessible to the driver during shipment.

4. **Accessibility.** Shipping papers and ERI will be immediately accessible to the driver during transport of gauges.

D. Inspection

Prior to shipment, inspect transport containers to ensure proper packaging and unimpaired physical condition of the container and its closure devices. Promptly report any defects to the RSO prior to shipment or use. The RSO will label and remove from use any gauge or package found to be defective and ensure their repair or replacement.