

Oregon Portable Gauge – Attachment A

Duties of the Radiation Safety Officer

1. Assure that all devices are listed on the license.
2. Assure that devices are used only by trained individuals.
3. Assure that all users wear personnel monitoring equipment, such as film badges or TLDs, as required.
4. Review all personnel monitoring reports, and:
 - a. Alert the radiation worker of a high or unusual exposure.
 - b. Notify the Agency of a high or unusual personnel exposure.
 - c. Investigate all unusual exposures.
 - d. Take corrective action to prevent other high or unusual exposures.
5. Ensure that devices are properly secured against unauthorized removal when not in use.
6. Serve as a point of contact between authorized users and management, and:
 - a. Provide assistance during emergency situations (gauge damage in the field, fire, theft, etc.).
 - b. Notify proper authorities (local police and state personnel, etc.) of an accident involving gauges.
7. Assure that sealed sources are leak tested at the required intervals (typically 6 months) and that a review of the Radiation Protection Program is conducted (at least annually) to ensure compliance with OAR 333-120-020 and license conditions.

Approved by: _____

Title: _____

Date: _____

Oregon Portable Gauge - Attachment B

Radiation Protection Procedures

The following radiation protection program will be followed at all times. Copies of these procedures should be maintained in the licensee's radioactive materials license file **and** with the shipping case of each nuclear gauge/device.

1. Portable gauges shall only be used by, or under the supervision of, licensed operators.
2. Radioactive sources shall not be opened and direct handling of an unshielded source shall not be permitted.
3. Unauthorized persons shall be kept out of the operating area. (A minimum distance of five meters or 15 feet is recommended).
4. The door to both the storage area and cabinet shall be posted with a CAUTION RADIOACTIVE MATERIALS sign. A "Notice to Workers" and the "Alternative Notice" stating the requirements of OAR 333-111-005 shall be conspicuously posted in the employee work area.
5. Licensed operators shall keep the Radiation Safety Officer informed of the location of the radioactive sources. A log shall be maintained at the **primary storage location** which includes, but is not limited to, the following information: device manufacturer and model number, user, date of use, and location of use.
6. Licensed operators or others within the proximity of nuclear gauges shall wear appropriate personnel dosimeters, such as film badges or TLDs. On no occasion shall a person wear a dosimeter assigned to another individual. Dosimeters should be kept in a cool, dry, low radiation background area when not in use.
7. Access to gauges or secured areas shall be limited to licensed operators. Key control shall be maintained by the Radiation Safety Officer.
8. Malfunctions in the shutter or other gauge part shall be reported immediately to the Radiation Safety Officer.
9. Security of the nuclear gauge shall be maintained at all times. Gauges should be returned to the carrying case and locked in the *safe, off, closed, or stored* position when not in use and shall not be left unattended except when in authorized storage location(s) or a locked vehicle.
10. Portable gauges shall be transported in the manufacturer's carrying case away from the passenger compartment, and *blocked and braced* to the body/frame of the vehicle from at least two points. The passenger/occupied area of the vehicle must not exceed a radiation level of 2 mR/hr.
11. Transportation of gauges/devices shall be in accordance with the requirements of 10 CFR Part 71 (U.S. Nuclear Regulatory Commission Rules) and Department of Transportation regulations (49 CFR Parts 100 to 199).
12. Radiation labels or placards (if required) shall be removed from vehicles when nuclear gauges are not being transported (49 CFR 172.502).
13. The Radiation Safety Officer shall maintain current copies of the following publications: OAR 333-111: "Notices, Instructions and Reports to Workers: Inspections"; OAR 333-120: "Standards for Protection Against Radiation"; OAR 333-102-200: "General Requirements for the Issuance of Specific Licenses"; OAR 333-100-005: "Definitions"; OAR 333-102-203; and OAR 333-102-300,

305, 310, 315, 320, 325, 330, 335, 340, and 345: additional pertinent specific license requirements and conditions; OAR 333-103-010: "Fees"; and applicable portions of Title 49 CFR Parts 100 to 199 U.S. Department of Transportation regulations (referenced in OAR 333-118; see **Attachment B**).

14. Personnel dosimeters shall be processed immediately when damaged or when the possibility of a high or unusual exposure exists. All high or unusual exposures shall be investigated by the Radiation Safety Officer. Corrective actions must be taken to prevent further high exposures. Notification procedures shall be in accordance with OAR 333-111-015.
15. Personnel dosimetry exposure records shall be kept in accordance with OAR 333-120-650; exposure records of **all** employees shall be maintained indefinitely and made available to employees upon request.
16. Leak testing of sealed sources is required at six month intervals, and shall be performed in the manner designated in the application form. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Oregon Health Division, Radiation Control.

Approved by: _____

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Oregon Portable Gauge

Emergency Procedures

In cases of an emergency such as loss, theft, fire, explosion, or vehicle accident in which the nuclear gauge is damaged or lost, the operator shall follow the procedures outlined in the Radiation Control Radiation emergency Handbook. These procedures shall include:

1. **SECURE THE AREA AROUND THE ACCIDENT.**

- a. Keep unauthorized persons away.
- b. Alert people in the vicinity of the presence of radioactivity and a possible hazard.

2. **DO NOT LEAVE THE SITE.** Send a helper or onlooker to notify the following:

- a. Radiation Safety Officer, whose phone numbers are:

Work Phone: _____

Home Phone: _____

(you may omit home number on the Agency copy)

- b. Radiation Protection Services: **971-673-0490**
- c. Oregon Emergency Response System (OERS) **1-800-452-0311**
- d. Local Police and Fire Departments (**911**)

3. The Radiation Safety Officer must immediately notify State and local authorities as indicated.
4. The operator should inform emergency workers of the potential radiation hazard; help keep the area secure; advise emergency personnel of the location of the radioactive device and the possible extent of the hazard.
5. The operator should not leave the site until qualified experts arrive unless seriously injured or incapacitated.

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