

PORTABLE NUCLEAR MOISTURE/DENSITY GAUGE LICENSING CHECKLIST

This checklist is intended for applicants desiring to obtain a license, amendment, or renewal for authorization to possess portable gauges containing sealed sources of radioactive material. Include the information specified below on the Radioactive Material License Application form or on attachments thereto. General information can be found in the Guide for Applicants for a Radioactive Material License. The Department requests that all correspondence be submitted in duplicate.

- Item 1a. Provide the name of the company, business entity, or individual (if self-employed) as you would have it appear on the license.
- 1b. Provide the physical address if the mailing address is a PO Box.
- 1c. Provide the phone and fax numbers, and email address (if available).
- Item 2a. Check the appropriate box for type of business, or indicate if government agency.
 Provide the State tax I.D. number (optional).
- 2b. Provide the address where radioactive material will be used or stored.
 Check the appropriate box to indicate use at temporary job sites.
NOTE: Portable gauges are most commonly used at temporary job sites. Permanent locations include any sites where the gauge is stored longer than six months.
- 2c. Check the appropriate box to indicate the type of licensing action being requested.
- Item 3a. Name the nuclide(s) (e.g., Cesium-137, Americium-241:Be, Radium-226, Californium-252).
- 3b. Specify the *sealed source* information, including
 manufacturer(s) and
 model number(s) (Sealed source (ABC Corp. Model DEF)).
NOTE: Source manufacturer and model number are generally different than gauge manufacturer and model number.
- 3c. Specify the
 number of sources to be possessed under the license and
 maximum activity of each source (e.g., One source pair not to exceed 10 millicuries of Cesium-137 and 50 millicuries of Americium-241).
- Item 4. Specify the *gauge* information, including
 manufacturer(s) and model number(s).
 Clearly state the intended use of the radioactive material (e.g., To be used as components of gauges, GHI Corp. Model JKL series, for determination of moisture/density in engineering material).
 State from whom the gauge(s) will be purchased (company, license number). Include the leak test if available.
- Item 5. Name the
 Radiation Safety Officer (RSO) and
 Alternate RSO (ARSO), (If no ARSO is named, please explain.)
For the RSO and ARSO, provide
 Statement of Training and Experience (Form RH-2050A),
 Manufacturer's training certificate on gauge operation, and
 RSO training certificate from an organization acceptable to the Department.
NOTE: RSO training is recommended within 90 days of obtaining a new license.
All training records must be maintained for inspection.

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Items 6. and 7. Not required for gauges. (If the applicant/licensee will use a survey meter, provide the manufacturer and model number. Commit to have the instrument calibrated at least annually and following service/repair.)

Item 8. Specify the

- NVLAP approved supplier of personnel dosimeters,
- type (i.e., whole body and either film, optically stimulated luminescent dosimeters (OSLD), or thermoluminescent dosimeters (TLD)), and
- frequency of exchange (i.e., monthly, every other month, or quarterly). NOTE: Only a monthly exchange frequency will be permitted for film.

Item 9. Describe the permanent storage location(s).

- NOTE: Different licensees shall not share a common storage area.

- a. Submit an 8-1/2" x 11" diagram of the gauge storage location(s),
 - specify the location of the gauge within the room,
 - describe all adjacent areas and their use
 - describe what is located on the other side of the wall(s) next to the gauge, and
 - indicate on the diagram the location of the nearest full-time workstation.
NOTE: No full-time workstation can be located within 10 feet of the gauge storage area. Consider neighboring suites as well.
- b. Describe the dedicated gauge storage box/cabinet/room (i.e., construction material and approximate dimensions).
- c. Indicate the maximum number of gauges that the storage box/cabinet/room can hold.
- d. Describe (or indicate on the diagram) the security used to prevent unauthorized removal of the gauge. NOTE: A minimum of three levels of security is recommended (e.g., gauge case, storage cabinet, room, building).
 - State who has access to the gauges.
- e. Describe (or indicate on the diagram) how the gauge will be recharged while in storage and maintaining three levels of security.
- f. Provide the land use zoning of the storage location (e.g., industrial, commercial).
NOTE: Residential storage is prohibited under most ordinances, laws and regulations.
- g. If using a public storage facility, provide copies of your written notifications to the
 - facility proprietor and local fire department.
- h. Describe procedures employed in the event of overnight storage at temporary job sites (if applicable), including
 - a description of the storage box/cabinet/room,
 - postings, and security.
 - Describe procedures employed in the event of overnight storage at a hotel or motel.

i. Post the following

- "Caution, Radioactive Material" sign with the international radiation symbol,
- "Notice to Employees" (Form RH-2364), and
- A current copy of the
 - radioactive material license,
 - state and federal regulations (Title 17, California Code of Regulations, and Title 10, Code of Federal Regulations, Part 20), and
 - operating and emergency procedures.
- or post a notice that describes these documents and states where they are kept available for review.

Item 10. Submit your Radiation Safety Program (RSP). You may consider contacting the gauge manufacturer for a copy of their sample program designed for customer use. Include the following information in your RSP:

- a. Information requested in Items 5, 8, 9, 12, and 13 of the application (RH 2050).
- b. The RSO duties and responsibilities.
- c. Your operating and emergency procedures with
 - an emergency response telephone list that includes names and phone numbers (day and 24-hr) for
 - RSO, and ARSO (if applicable),
 - Local inspection agency (Sacramento, Granada Hills, Berkeley, San Jose or Brea)*,
 - Regulatory agency (RHB, Sacramento)*, and
 - Gauge manufacturer(s).
 - * Refer to website (www.dhs.ca.gov/rhb) for current RHB contact information.
- d. Submit your leak test procedures.
 - Perform leak tests for the gauge at intervals not to exceed 6 months (Troxler, Humboldt gauges), or 12 months (CPN gauges).
 - Identify the individual or company who collects your leak test samples,
NOTE: Only the RSO or individuals designated in writing by the RSO may collect leak test samples.
 - Follow the manufacturer's instructions for collecting leak test samples,
 - Identify the vendor who provides your leak test kit, and
 - Identify the vendor who performs your sample analysis.
- e. Submit your gauge transportation procedures, including
 - method of transport
 - use of DOT-approved packages
 - bracing and blocking
 - HAZMAT transportation training (initial and 3-year refresher)
- Carry a properly completed shipping paper (or bill of lading) for each gauge within arm's reach of the driver during transit.

- Comply with minimum standards for transportation security such as:
 - Secure the transport case to a fixed and permanent attachment to the vehicle.
 - Provide at least two locks between the radioactive sources and the public in addition to the locks that secure the Type A package to the vehicle.
 - Provide a device (e.g., alarm or steering wheel lock) to help deter unauthorized entry, access, and use of the vehicle.

- f. Carry the following documents to temporary job sites
 - copy of your license,
 - manufacturer's instruction manual,
 - authorized user list, signed by the RSO, and
 - operating and emergency procedures with emergency response telephone list.

- g. Notify the Department as soon as practicable, but within 24 hours of theft, loss, or damage to a gauge.
 - Notify the local law enforcement immediately in the event of theft or loss of a gauge.

- h. Maintain a utilization log (in/out log) that includes serial number, operator's full name, date checked out, destination, and date of return.
 - Submit a copy of the log.

- i. Conduct a semi-annual inventory. The RSO must perform a physical inspection of the gauge(s).

- j. Perform an annual audit of your RSP and maintain all such records for inspection.

- k. Provide annual radiation safety refresher training internally (e.g., by the RSO) or externally (e.g., by the manufacturer) to all users. All training records must be maintained for inspection.

- Item 11. Not required for gauges.

- Item 12. Return the gauge to the manufacturer or transfer it to another specific licensee of the U. S. Nuclear Regulatory Commission or an Agreement State.
 - NOTE: Receipt records must be provided at termination of the license.

- Item 13. Notify the Department in writing at least 30 days prior to vacating or relocating a storage area. NOTE: A storage location must not be vacated or relocated until authorization is given by the Department via a license amendment or termination. Leak test records must be provided to release a facility for unrestricted use.

- Item 14. A person who has financial and legal responsibility for the applicant must certify the application by providing his or her
 - original signature,
 - printed name, and
 - official job title.