

Chapter 6 – Personnel

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Chapter 6

PERSONNEL

6.1 PURPOSE AND SCOPE

This chapter provides a summary of personnel duties and responsibilities relating to the FDOT radiation safety program. The chapter covers the duties and responsibilities required for proper implementation of the FDOT radiation safety program. When situations arise which are not specifically addressed, diligent application of common sense, judgment, and experience is expected.

6.2 RADIATION SAFETY OFFICER (RSO)

6.2.1 Definition

The Radiation Safety Officer (RSO) is an individual who has the knowledge, duties, responsibilities, and authority to administer a radiation safety program.

6.2.2 Training Requirements, Authority, Duties and Responsibilities of the RSO.

- (1) A RSO must be appointed with the authority to fulfill the duties and responsibilities of the position.
- (2) The Department of Health (DOH), must be notified in writing within 30 days after a RSO permanently discontinues performance of the position's duties.
- (3) The RSO must have sufficient training and experience with radioactive materials to be a user of the radioactive materials authorized by the license. Training must include practical experience in the safe use of radioactive materials and knowledge of procedures, facilities and equipment.
- (4) The duties and responsibilities of the RSO include the following:
 - (a) Ensure compliance with all terms and conditions of the license and regulations;

- (b) Ensure that sealed sources are leak tested in a timely manner and as prescribed by the manufacturer and by the license;
- (c) Ensure that radioactive materials are used only by individuals who are authorized by the license and that all individuals wear required personnel monitoring equipment;
- (d) Maintain all records required by the license and regulations, including personnel monitoring records, leak test records, inventory records, training records, and receipt, transfer and disposal records;
- (e) Ensure that radioactive materials are properly secured against unauthorized access or removal;
- (f) Serve as a contact with the DOH for events such as the loss, theft or damage of radioactive material;
- (g) Ensure that all users read and understand FDOT operating, emergency, and radiation safety procedures,
- (h) Implement Inspection In Depth (IID) functions for the FDOT radiation safety program, and
- (i) Assist District RSOs in implementing the FDOT radiation safety program at each district and across the state.
- (j) At least annually, conduct a formal review of the radiation protection program's content and implementation, as required by 64E-5.303(3), F.A.C. The review will include an evaluation of equipment, procedures, dosimetry records, inspection findings, and incidents. The RSO will assess trends in occupational exposures as an index of the program's success and determine if any modifications to the program are needed. A summary of the results of each annual review, including a description of actions proposed and taken (if any) will be documented by the RSO. Audit reports will be maintained for 3 years from the date of the review

6.3 DISTRICT RADIATION SAFETY OFFICER (DRSO)

The DRSO serves as an extension of the RSO within the districts, fulfilling the applicable duties and responsibilities of the RSO as required by the license. The following specific tasks are listed:

- (A) Upon request of non-departmental personnel, review copies of their radioactive materials license and supporting documentation; i.e., personnel training and qualifications records, density gauge information, etc. according to section 1.3.3.4, and verify the license covers the equipment used
- (B) Provide training as needed.
- (C) Ensure that no employee under 18 years of age is permitted to transport, use, or assist in the use of gauges or enter a restricted area, and ensure compliance with requirements for declared pregnancies.
- (D) Emphasize the ALARA philosophy to gauge operators, provide guidance on relevant changes to reduce exposure levels, investigate within 30 days the cause of elevated radiation exposures, take corrective actions as necessary to ensure that unnecessary exposures are halted and recurrence is prevented, and provide a report to the RSO of each investigation and any actions taken.
- (E) Obtain and give the RSO complete personal information required for dosimetry (refer to section 2.3.3.2), and implement the monitoring program within their districts.
- (F) Ensure all equipment requiring leak testing is tested at required intervals, and that physical inventories of all licensed radiation sources are conducted semiannually, including inspection of gauges, transport/storage containers, allied equipment and documents as stated in Chapter 5.
- (G) Obtain and maintain required number of calibrated and operable radiation survey instruments.
- (H) Perform all required actions upon notification of a gauge-related incident.

- (I) Ensure that all storage area requirements are met.
- (J) Be available to project personnel for receiving reports of problems and for assisting with implementation of requirements of the RSM.
- (K) Distribute and collect dosimeters to monitor radiation exposure, distribute annual and termination dose reports to their district personnel, and be available to respond to any questions regarding dose reports.
- (L) Monitor non-departmental personnel for compliance with Chapter 9.

6.4 FDOT RESIDENT ENGINEER OR DESIGNEE

At FDOT construction projects, the Project Administrator is directly responsible for safe and proper operation of gauges by department personnel, and is responsible for the duties listed below.

- (1) Ensure that only qualified operators or personnel working under their direct supervision handle, transport and/or operate gauges on Department projects, and arrange for employees to obtain a Certificate of Qualification authoring them to operate gauges.
- (2) Ensure that no employee under 18 years of age is permitted to handle, transport, use or assist in the use of gauges or enter a restricted area, and ensure compliance with requirements for declared pregnancies.
- (3) Ensure that all employees who routinely operate gauges or routinely enter restricted areas are furnished dosimeters and that required information for monitored workers is given to the DRSO.
- (4) Perform required actions upon notification of a density gauge incident, and submit a written report to their DRSO following a gauge incident.
- (5) Maintain a set of keys for all gauge locks under the project administrator's jurisdiction, and ensure gauges in construction offices are stored according to section 4.6.
- (6) Advise the DRSO of conditions that prevent safe practices or prevent reliable density gauge operation.

- (7) As deemed appropriate, review non-departmental licenses and verify the licenses cover equipment being used, before they are permitted to operate gauges on a FDOT project.

6.5 GAUGE OPERATOR

- (1) Know and practice the ALARA philosophy.
- (2) On a volunteer basis, female operators should verify suspected pregnancy and/or declare pregnancy without delay.
- (3) Do not operate or handle gauges unless wearing their assigned dosimeter and take proper care of it according to instructions in the RSM.
- (4) Lock the gauge when not in use and secure in an approved location when not directly under the operator's surveillance.
- (5) When a density gauge is used, maintain the gauge diary according to instructions in the RSM.
- (6) Know the categories of incidents and how to implement emergency procedures.
- (7) Ensure that a completed Bill of Lading and Emergency Response Information form are accessible when transporting a gauge and comply with transport and security requirements described in Chapter 4.
- (8) Be familiar with the FDOT RSM and ensure that a copy of the RSM accompanies gauges at all times.
- (9) Implement actions required of the operator as described in Chapter 5.