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Chapter 3

EMERGENCY PROCEDURES

3.1 PURPOSE

To provide and implement emergency procedures, and describe situations in which they are to be implemented.

3.2 SCOPE

This chapter applies to gauges possessed by the Department when involved in situations requiring emergency procedures to be implemented.

3.3 GENERAL INFORMATION

3.3.1 Incident Definition

“Incident” refers to any instance, event or situation resulting in damage or the possibility of damage to a nuclear surface moisture/density gauge (gauge). Incidents fall under the following categories: accident, equipment misadventure, fire, loss or theft.

3.3.2 Incident Categories

3.3.2.1 Accident –

Stationary Gauge – A situation in which a gauge may have been damaged from being hit or run over by a vehicle or construction equipment.

Transported Gauge – A situation in which a gauge or gauge case that is being transported sustains damage as a result of a vehicular accident.

3.3.2.2 Equipment misadventure – Anything out of the normal scope of operation that does not match any other category is considered an equipment misadventure. Examples: a gauge is dropped, the source rod cannot be retracted due to an indexing problem or the source rod has become lodged in the ground, etc.

3.3.2.3 Fire – A gauge is in a vehicle or building that caught fire and burned.

- 3.3.2.4 Loss or Theft – A gauge is considered stolen if it is known to have been stolen or lost, or if it cannot be accounted for.

3.3.3 Water Damaged Gauges

Water damage alone is not an incident category, and it is not necessary to implement emergency procedures. If apparent water damage occurs in conjunction with an incident, implement emergency procedures for that category. If water damage is suspected and no incident has occurred, inform the District Radiation Safety Officer (DRSO) as soon as possible.

3.4 INSTRUCTIONS FOR FDOT GAUGES

3.4.1 Category

Determine the category of the incident (see Section 3.3.2). Follow emergency procedure checklist (App. A-20).

3.4.2 Damaged or Exposed Source

Follow the steps below if it appears that conditions may cause the spread of radioactive materials before the Department of Health can respond.

If a sealed source appears to be damaged:

- (A) Wrap the source in plastic, paper or close woven material to prevent the spread of radioactive material,
- (B) Pack the wrapped source in a sack of damp soil (radiation shield), and
- (C) Keep unauthorized personnel away from site.

3.4.3 Movement of Gauges Involved in Incidents

- (A) If, as a result of an incident, the location of a gauge is considered unsafe, likely to impede the normal flow of traffic, or present potential hazards, the gauge may be relocated to a safe location in the immediate vicinity.
- (B) Do not transport a damaged gauge from the incident site without DOH permission, although it may be necessary to relocate a gauge within the immediate vicinity of the incident as in Section 3.4.3(A).

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- (C) In the event of a severely damaged gauge, DOH will provide the DRSO instructions for preparing the gauge for transport and shipment.
 - (D) DO NOT move a gauge involved in a fire without DOH permission, as in Section 3.4.3(C).

3.4.4 Contacting Local Law Enforcement Agencies

If a gauge being transported is lost or stolen, contact the local law enforcement agency that has jurisdiction over the location where the incident occurred. If an incident involves a member of the public, contact the local law enforcement agency that has jurisdiction over the location where the incident occurred.

3.4.5 Unauthorized Personnel

Keep unauthorized personnel at least 10-15 feet from the old and/or new locations.

3.4.6 Initial Notification

- (A) The operator or individual involved in or discovering an incident will immediately notify their Project Administrator or person in charge, DRSO, or authorized designee. Refer to the Department Emergency Procedure Checklist (App. A-20) for more information.
- (B) The operator, Project Administrator, person in charge, DRSO, or authorized designee will immediately notify DOH.
 - (1) The person notifying DOH shall request the following:
 - (a) The name of the representative notified.
 - (b) Time and date DOH was notified.
 - (c) Specific instructions from the DOH representative notified.
 - (2) Only DOH will determine if a gauge is considered damaged.
 - (3) DOH must give approval to move a gauge from the incident location.

3.4.7 Project Administrator or Person in Charge

- 3.4.7.1 Upon Notification – When receiving notice about a density gauge incident, the Project Administrator or person-in-charge should respond with the following as applicable:
- (A) Ensure DOH has been notified and all instructions given are carried out.
 - (B) Ensure the local law enforcement agency is notified if applicable.
 - (C) Ensure the DRSO or Authorized Designee is notified as soon as possible.
- 3.4.7.2 Written Report – The Project Administrator or person-in-charge obtains the following information and submits in writing (typed) to DRSO within seven working days.
- (A) Time, date, and location of incident.
 - (B) Name of DOH representative notified, time and date of notification.
 - (C) Gauge manufacturer, model, and serial number.
 - (D) Description of incident – Give as much information as possible regarding how and what type of incident occurred.
 - (E) Sketch, if necessary, to provide complete information.
 - (F) Police report if applicable – If the type of category of incident requires the notification of local law enforcement, include a copy of the report (see Section 3.4.4).
 - (G) Any report from other authorities who might be involved in addition to local law enforcement.

3.4.8 District Radiation Safety Officer

- 3.4.8.1 Upon Notification – When receiving notice about an incident from a Project Administrator or other individual, the DRSO should respond with the following as applicable:
- (A) Verify that DOH has been notified and all instructions given are carried out.
 - (B) Verify the local law enforcement agency has been advised if applicable.
 - (C) Verify that all appropriate actions are being taken according to particular occurrence, i.e., do not remove the gauge if in a fire, minimize radiation if source is damaged or exposed, etc.
 - (D) Remind the applicable person(s) of any required report(s).
 - (E) If appropriate (e.g., recommended by DOH), perform a leak test. Submit the completed leak test sample to the FDOT RSO for analysis.
- 3.4.8.2 Notify RSO – The DRSO informs the RSO of an occurrence as soon as possible, providing all known information.
- 3.4.8.3 Evaluation and report – The DRSO should perform the following upon receiving the Project Administrator’s written report.
- (A) Verify the accuracy and reliability of the report and talk to the operator or individual who reported the incident.
 - (B) Make sure the police report is included if the report provides relevant information.
 - (C) Evaluate the incident and take steps to prevent reoccurrence.
 - (D) Submit report, including DRSO comments based on Section 3.4.8.3(A) - (C) to RSO within seven working days after receiving the Project Administrator’s report.

3.4.9 Radiation Safety Officer

Upon receiving the DRSO's report package, the RSO will perform the following:

- (A) Review package for compliance with Section 3.4.
- (B) Submit copies of all DRSO items (including leak test results, if a leak test was performed) to DOH with a cover letter including appropriate comments. (See Section 3.4.8.1(E) regarding leak test procedures).
- (C) Notify all DRSOs, if necessary, of any findings and/or actions to be taken as a result of the incident, to prevent reoccurrence.

3.5 INSTRUCTIONS FOR NON-FDOT GAUGES

3.5.1 General Procedure

If an incident involving a non-Department gauge occurs on a Department site, the entity using the gauge must follow the emergency procedures specified in their radioactive materials license.

3.5.2 DRSO Role

The DRSO or authorized designee will fulfill the role of a concerned state employee interested in the safety and well being of all persons who might be adversely affected by an incident.

3.5.3 DRSO Actions

The DRSO or authorized designee is encouraged to provide assistance without jeopardizing their own safety. Actions may include:

- (A) Evaluate the incident to decide whether anyone's safety is in jeopardy.
- (B) Assist the operator or other personnel to implement emergency procedures required by their license.
- (C) As the situation dictates, acquaint the operator and any fellow employee(s) with applicable Department emergency procedures. Assist with implementation as requested.
- (D) If necessary, take unilateral action to implement emergency procedures.