

Clarifications and Expectations

Ensuring the Safety and Security of Radioactive Materials

The Joint Commission has identified the need to increase the field's awareness of the Life Safety Code® (LSC). To address this need, The Joint Commission Perspectives® publishes the column **Clarifications and Expectations**, authored by George Mills, MBA, FASHE, CEM, CHFM, CHSP, director, Department of Engineering, The Joint Commission. This column clarifies standards expectations and provides strategies for challenging compliance issues, primarily in life safety and the environment of care. You may wish to share the ideas and strategies in this column with your Facilities leadership. This month's column also includes information for the Radiology Department.*

Suppose that the delivery person for the radiopharmacy has access to your facility's hot lab.† Wearing the uniform of the radioisotope company, she makes deliveries without hospital-provided vendor identification, a security escort, or any other involvement on the part of your staff.

Now let's say that your safety officer sees the delivery person in the hallway one day and wonders whether the delivery process is appropriate because she doesn't have a hospital staff escort. The safety officer, concerned that the organization's vendor policy process is not being followed, is worried that the security of the radioactive materials could be at risk. Although you—the facilities manager—believe your organization is in compliance with Joint Commission standards, you are not completely sure. The following article takes a look at this topic and provides clarity on the subject.

Are You in Compliance?

Whether your organization is in compliance will depend mostly on your policy regarding the security of radioactive materials required under "Environment of Care" (EC)

Standard EC.02.02.01, Element of Performance (EP) 6.‡ Under this requirement, organizations must minimize risks associated with selecting, handling, storing, transporting, using, and disposing of radioactive materials. This EP does not require organizations to provide a hospital staff escort for individuals delivering radioactive materials.

Consider NRC Requirements When Creating Policy

Although the contents of an organization's radioactive security policy will vary depending on the size of the facility and scope of its services, the policy must follow the recommendations of the Nuclear Regulatory Commission (NRC)—the federal entity that establishes requirements for the design and manufacture of packages for radioactive materials.§ The Joint Commission requires compliance with NRC's regulations because NRC is the highest authority having jurisdiction (AHJ) for radioactive materials. Currently, 37 states have agreements with the NRC in which the state adopts regulations that are compatible with the NRC regulations and that regulate the use of radioactive material. In the remaining "non-agreement" states, health care organizations must apply directly to the NRC for a license to use radioactive material. (See "The NRC Status of Your State," page 9, to find out which states do and do not have agreements with NRC.)

Through federal legislation, the NRC requires organizations licensed to transport, store, and use radioactive material—such as health care organizations—to do the following:

- Ensure security when radioactive material is not in storage (for example, when it is being transported through a facility to a storage area)
- Secure radioactive material once it is at a designated storage location, such as a hot lab

* Life Safety Code® is a registered trademark of the National Fire Protection Association, Quincy, MA.

† A hot lab is a laboratory designed for working with and storing radioactive materials.

‡ This EP applies to the ambulatory, critical access hospital, hospital, laboratory, and office-based surgery programs.

§ See Title 49, Transportation, of the U.S. Code of Federal Regulations or 49 CFR 171 for more information.

- Maintain records of receipt, transfer, and disposal of any radioactive material
- Conduct physical inventories at required frequencies to account for the continued security of radioactive material

Ensure Safe and Secure Transport

Federal Regulation 10 CFR 20.1802 governs the control of radioactive material not in storage.^{||} Based on the requirements of this law, a health care organization receiving radioisotopes is expected to control and maintain constant supervision of radioactive material during transport to a secure area.

Your organization policy should dictate specifically how this supervision takes place. Although not required by The Joint Commission, some organizations require a delivery person to sign in upon entry and receive a security escort through the facility to the designated storage area (such as the hot lab). If your organization's policy indicates that an escort is necessary, then a surveyor will assess whether you comply with your own policy.

Although the NRC and the "agreement states" do not require a hospital staff escort for radioisotope delivery, the person delivering radioactive materials must be trained in accordance with requirements; that is, the person must be a radiation worker, with specific training and credentials. This ensures that the individual handling the material during transport is qualified to maintain its security and safe passage. Since radiopharmacies and other organizations supplying radioactive material are also NRC and "agreement state" licensees, the NRC and "agreement states" take responsibility for verifying—during regular inspections—that all of an organization's drivers have been properly trained in the safe handling of radioactive materials. Again, to escort or not to escort this individual through the building is solely the decision of the receiving organization and is not specifically required by the NRC, "agreement states," or The Joint Commission.

Securely Store Radioactive Material

Federal regulation 10 CFR 20.1801 governs the security of stored radioactive material. Based on the requirements outlined in this law, a health care organization must store this type of material in a secure, locked area or else provide constant supervision of the material. Note that access to this area

^{||} While the NRC regulates the users of radioactive materials and approves the design, fabrication, and maintenance of shipping containers, the Department of Transportation regulates shipments and carriers of radioactive materials while they are in transit and sets standards for labeling and smaller quantity packages.

The NRC Status of Your State

The following states have agreements with the Nuclear Regulatory Commission (NRC) and have adopted regulations compatible with the NRC guidelines:

Alabama	New Hampshire
Arizona	New Jersey
Arkansas	New Mexico
California	New York
Colorado	North Carolina
Florida	North Dakota
Georgia	Ohio
Illinois	Oklahoma
Iowa	Oregon
Kansas	Pennsylvania
Kentucky	Rhode Island
Louisiana	South Carolina
Maine	Tennessee
Maryland	Texas
Massachusetts	Utah
Minnesota	Virginia
Mississippi	Washington
Nebraska	Wisconsin
Nevada	

The following states do *not* have agreements with the NRC. Therefore, health care organizations in these states must apply directly to the NRC for regulation, guidance, communications, package certification, shipping requirements, and oversight.

Alaska	Missouri
Connecticut	Montana
Delaware	South Dakota
Hawaii	Vermont
Idaho	Washington, DC
Indiana	West Virginia
Michigan	Wyoming

should be restricted to approved personnel and that organization policy should outline how the security of this area is maintained and who has access to the area. As always, organizations must make sure practice reflects policy.

Document Activities

The NRC offers a supplemental publication that provides specific guidance about medical use licenses, such as those needed to use and store radioactive material in a hospital setting. Section 8.25 of the *Consolidated Guidance about Materials Licenses: Program-Specific Guidance about Medical Use Licenses* (NUREG-1556, Volume 9, Revision 2) dictates

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that facilities must document the receipt, transfer, and disposal of all licensed material, including radioactive material. There are various ways to document these activities, including via paper-based logs or electronic databases.

In addition to documenting actual receipt, transfer, and disposal, organizations should document their procedure or protocol for receiving radioactive material and transporting it throughout the hospital.

Conduct a Regular Inventory

Section 8.40 of the NRC's *Consolidated Guidance* requires organizations to regularly inventory radioactive material to verify its safe storage. Such an inventory may prevent the unnecessary storage of unused or expired materials that could pose a risk to patient or staff safety.

Your organization should plan to inventory radioactive materials at least every six months. This process can be folded into the inventory of other hazardous materials—chemicals and hazardous energy sources, for example—required by Standard EC.02.02.01, EP 1. An organization may wish to assign responsibility for the inventory to each department housing radioactive material. In addition, individuals com-

pleting the inventory should be trained on how to perform the task and complete any forms associated with it.

Revisit and Renew Your Commitment

Organizations should be aware of and vigilantly maintain the security of radioactive materials. While it may seem that the safety and security risks are low when a licensed and bonded courier delivers to a secure location, potential problems and threats to safety are very real. Situations such as a new delivery person who gets lost; a slip, trip, or fall that damages the radioisotope containment unit; or intentional sabotage of radioactive materials are serious safety and security risks. Organizations should review their policies on radioactive materials and ensure they preserve security from the moment the material comes on site until it leaves. Organizations should also consider regularly auditing their security measures to make sure practice reflects policy.

This month's column discusses ensuring the safety and security of radioactive materials. Next month's column will continue to focus on the importance of maintaining the various life safety features by discussing how to keep corridors clear of clutter. 