

Department of Transportation Hazmat Employee Training for Shippers of Radioactive Materials
(Part I and Part II are sequential sessions)

Medical Physicists are frequently involved in shipping radioactive materials or supervising those who do. Current U.S. Department of Transportation Hazardous Material Regulations, 49 CFR Parts 171 - 185, require hazmat employees to have documented training specified in 49 CFR 172 Subpart H. A hazmat employee is defined as an individual who: (1) loads, unloads or handles hazardous material; (2) manufactures, tests, reconditions, repairs, modifies, marks or otherwise represents containers, drums or packagings as qualified for use in the transportation of hazardous materials; (3) prepares hazardous materials for transportation; (4) is responsible for safety of transporting hazardous materials; or (5) operates a vehicle used to transport hazardous materials. Recurrent training is required at least once every three years. (The IATA two year training interval is not applicable and is generally misunderstood.) FAA has escalated inspection and enforcement. Facilities who ship radiopharmaceuticals to other laboratories, return radiopharmaceuticals or radioactive sources to suppliers, or otherwise ship radioactive materials have been cited for failure to provide and document the required training. The interrelationship of transportation regulations, 49 CFR, IATA, ICAO and other transportation regulations, which are frequently misunderstood will be explained.

The course will cover typical shipments by air and highway which are encountered in a medical institution. Items such as fissile materials, highway route controlled quantities, rail shipments, vessel shipments and such will be omitted; although specific questions may be addressed. A major objective of the course is to present the process of shipping radioactive material in a sequential and logical fashion. How radioactive materials for transportation purposes are defined by activity concentrations for exempt materials and activity limits for exempt consignments will be explained. Radioactive material shipments of excepted packages and Type A packages will be emphasized.

The program is designed to meet the general awareness and function specific DOT training requirements for shippers of medical radioactive materials. Safety training and security awareness training is generally satisfied by the training required under the institution's radioactive material license. For shippers of radioactive Yellow III labeled packages an in-depth written security plan and training is required. Contents of security awareness training and in-depth security plans will be briefly outlined. It is the hazmat employer's responsibility to ensure that each hazmat employee is properly trained. It is the hazmat employer's responsibility to determine the degree to which this course meets the employer's requirements, including contents of the course and the examination. Participants will gain sufficient knowledge to prepare hazmat training programs for others in their institutions. A handout will be posted which should be printed out and brought to the course for reference during the presentation. The handout will also satisfy part of the training documentation required by DOT. A feature handout section is a composite table which provides A_1 , A_2 , RQ, Exempt Concentration, and Exempt Consignment values in a single table in both Becquerel and Curie units. Course attendance will be certified through the AAPM CEU documentation system.

Educational Objectives:

1. Understand the regulatory requirements for shipping radioactive materials.
2. Understand the regulatory requirements for training of hazmat employees.
3. Comprehend how to classify, package, mark, label, document, placard, and transport radioactive materials.