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RAIL WORKERS HAZARDOUS MATERIAL TRAINING PROGRAM

ADAPTING TRAINING TO YOUR TARGET AUDIENCE

DOE Trainers Exchange Knoxville
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The Challenge

One challenge, as trainers, we consistently face is how to focus on the needs of the students while meeting the requirements of the presentation material. A generic one size fits all program can be problematic with the target audience needs, time constraints and budget considerations. The D.O.E. Modular Emergency Radiological Response Train the Train (MERRTT) program presented just such a problem for our group, the Railroad Workers Hazardous Materials Training Program (RWHMTP). Our target audience is rail transportation workers, and while they are often first responders at the awareness level, they do not necessarily respond to medical, clean up or administrative duties. Our students needed the basics contained in the MERRTT program which required the development of a shorter, focused program. This session will illustrate the process our group used to create the Rail MERRTT program and acquire the necessary approval to make our presentations.

Our History

Rail workers, not unlike workers in many industries, do not readily have access to quality hazmat and/or basic safety and health training. With the FRA (Federal Railroad Administration) and OSHA (Occupational Safety and Health Administration) sharing jurisdiction in regulating worker safety and health conditions on railroad property, responsibilities may not be easily apparent which further cloud the accountability issue. This joint jurisdiction is often not addressed by or integrated into employer provided training for rail workers, leaving the majority untrained or undertrained to safely perform hazmat related functions consistent with the requirements set forth by O.S.H.A. and D.O.T. The target population of approximately 190,000 conductors, engineers, brakemen, switchmen, carmen, signalmen, laborers,

boilermakers, dispatchers, and maintenance of way workers are represented by the nine rail union affiliates of this cooperative effort to address those short comings.

The Rail Workers Hazardous Materials Training Program was originally funded in 1990 by the National Institute of Environmental Health Sciences (NIEHS) to provide hazardous materials training for rail workers. Since that time, over 27,000 workers have participated in NIEHS-funded training courses that address requirements of OSHA 1910.120 and DOT's Hazardous Materials Regulations (49 CFR, Part 172, Subpart H).

In 2008 the program received additional funding from the US Department of Transportation to conduct Hazardous Material Instructor Train the Trainer courses (for rail workers who have completed four or five-day hazmat training) at the National Labor College/George Meany Campus in Silver Spring, Maryland.

Today

Currently 1.2 million shipments of hazardous materials are transported daily in the United States. America's rail networks account for 10% of the total number of shipments, but approximately 60% of the total bulk quantity.

The U.S. Department of Energy (DOE) ships large amounts of radioactive material by rail and the number of rail shipments are expected to increase in coming years. As the number of rail shipments increases, so does the potential for responders to encounter a rail incident involving radioactive and chemical hazards.

Staff Peer Trainer's from the Rail Worker's Hazardous Material Training Program will present this session from their prospective as full-time rail workers and health & safety advocates. The Rail Worker's Hazardous Material Training Program is the premier training organization for the nation's 190,000 railroad professionals.

Adapting Training Exercise

The goal of this exercise is to select which MERRTT modules would best meet the needs of your target audience using an 8 hr focused program format.

Instructions:

- Read the attached target audience description or use your knowledge of the target audience which you train.
- Decide which modules should be included in an 8 hr MERRTT program meeting the needs of your target audience.
- Use as many or few modules as are required.
- Each MERRTT module has a total time of between 30 – 45 minutes.
- Using the supplied list of MERRTT modules to make your selections and record them in the blank column.
- Be prepared to discuss your selections with the group.

Adapting MERRTT Exercise

MERRTT	MERRTT 8 hr Course
1) Radiological Basics	1.
2) Biological Effects	2.
3) Rad Material Shipping Packages	3.
4) Hazard Recognition	4.
5) Initial Response Actions	5.
6) Patient Handling	6.
7) Incident Control	7.
8) Radiological Survey Instruments	8.
9) Transport of Safeguard Material	9.
10) DOE Shipments and Resources	10.
11) Decontamination, Disposal and Documentation	11.
12) WIPP	12.
13) Pre-Hospital Practices	
14) Transportation by Rail	
15) Incident Command	
16) Public Information Officer	

Notes:

MERRTT Module Description

1) Radiological Basics –

- Identifying the basic components of the atom, the 4 basic types of Ionizing radiation. Defining ionizing radiation, radioactivity, radioactive material and radioactive contamination.

2) Biological Effects -

- Identify the potential health effects of radiation exposure, define acute and chronic radiation doses and identify the biological pathways (routes of entry) of internal radioactive contamination.

3) Radioactive Material Shipping Packages **–**

- The purpose of this module is to provide the responder with a basic understanding of the types of packages used to transport radioactive material and the potential hazard posed by the material contained within these packages.

4) Hazard Recognition

- The purpose of this module is to increase the responder's understanding of package markings, warning labels and placards used for packaging and shipping radioactive material.

5) Initial Response Actions

- The purpose of this module is to provide a basic understanding of the initial actions responders should take when arriving at a scene of a radioactive material transportation incident.

6) Patient Handling –

- The purpose of this module is to help the responder assess the potential risks in handling contaminated patients at a radioactive material transportation incident. This module will aid the first responder in preparing patients for transport from the incident scene to the hospital.

7) Incident Control -

- Upon completion of this module, responders will understand the importance of conducting a proper hazard assessment at the scene of a transportation accident involving radioactive material. Understanding the hazards at the scene will help responders establish effective control zones, select appropriate PPE, and protect on-scene personnel from radiation and contamination.

8) Radiological Survey Instruments -

- The purpose of this module is to provide responders with a general awareness and understanding of radiological survey instruments and how they can be used to survey for radiation exposure and contamination. Proper use of radiological survey instruments will provide responders with more information on the hazards present at the scene.

9) Transportation of Safeguard Material-

- The purpose of this module is to familiarize emergency response personnel with the system that is in place for transporting nuclear weapons, nuclear weapons components, and special nuclear materials.

10) DOE Shipments and Resources-

- Upon completion of this module, participants will have a better understanding of the DOE's transportation activities and the types of materials and wastes shipped by DOE. Knowledge of available resources will make a response more efficient and effective.

11) Decontamination, Disposal and Documentation-

- The purpose of this module is to inform you of methods used to decontaminate personnel and equipment. This information will help you prevent further spread of radiological contamination and minimize the amount of radioactive waste generated when performing response activities at the scene of a transportation incident involving radioactive material.

12) WIPP-

- The purpose of this module is to increase the responder's knowledge of the Waste Isolation Pilot Plant and its transportation system. Having an understanding of the material being transported to WIPP and how it is transported will increase the responder's ability to quickly recognize, safely respond, and accurately relay information during an accident involving WIPP material.

13) Pre-Hospital Practices

- The purpose of this module is to increase your understanding of unique aspects of pre-hospital patient care during a radioactive material transportation incident. This knowledge will help you, as a responder, function with confidence during incidents that involve radioactive material.

14) Transportation by Rail

- The purpose of this module is to increase the responder's knowledge of the transportation of radioactive material by rail. Rail accidents involving radioactive material present unique problems and challenges for responders. Having an understanding of the material being transported by rail and how it is transported will increase the responder's ability to quickly recognize, safely respond, and accurately relay information during a rail accident involving DOE-owned radioactive material.

15) Incident Command

- The purpose of this module is to provide you with an understanding of the actions that should be considered during the management of an incident involving radioactive material. This module will help you realize that a successful mitigation involves proper notification, planning, and documentation of incident activities.

16) Public Information Officer

- The purpose of this module is to provide the PIO with the necessary information to successfully communicate to the public the events and outcomes of the incident. The PIO may not necessarily be an expert in radiological principles so this module will inform them of basic concept. This should enable them to more effectively communicate necessary information to the media and public thereby ensuring they are adequately and correctly informed during a transportation incident involving radioactive material.