Are You Prepared?

Response to a Radiological Transportation Accident, Simplified

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Transportation by Air, Rail, Water, and Highway
Transportation by Air, Rail & Highway

- Annual Estimates of United States Hazardous Materials Shipping Activities
  - 500 Billion packages
  - 400 Million are hazardous material
  - 3 Million are radioactive
  - DOE ships 5,000 to 20,000
What do you do when an accident happens?
How can responders prepare for accidents involving radiological material?

- 44 CFR 351.1 assigns federal agency responsibilities for assisting jurisdictions in emergency planning and preparedness for radiological/nuclear emergencies.
DOE Implemented the Transportation Emergency Preparedness Program (TEPP)

www.em.doe.gov/otem
What is TEPP?

- TEPP is a component of the overall comprehensive emergency management system established by DOE Order 151.1, Comprehensive Emergency Management System. TEPP integrates a basic approach to transportation emergency planning and preparedness activities under a single program with the goal to ensure DOE, its operating contractors, and state, tribal, and local emergency responders are prepared to respond promptly, efficiently, and effectively to accidents involving DOE shipments of radioactive material.
TEPP Goals

• Serve as a Department-wide program
• Provide planning and technical assistance to promote a coordinated response to transportation incidents involving radioactive material
• Provide training assistance and promote development of flexible, low-cost, high-quality training materials
• Serve as a link between emergency preparedness and transportation planning
Components of TEPP

- Needs Assessment
  - Used to determine a jurisdiction’s strengths and weaknesses related to radiological emergency response

- Model Plans and Procedures
  - Used to address weaknesses identified in the Needs Assessment:
    - Initial Response Procedure
    - HazMat Team Procedure
    - Patient Handling Procedure
    - Medical Examiner/Coroner Procedure
    - Decontamination Procedure
    - Recovery Procedure
Components of TEPP

- Offered Training Programs
  - CMERRTT
  - MERRTT
  - TMERRTT
  - Radiation Specialist

- Offered HSEEP Compliant Exercises Accident Scenarios
  - Spent Nuclear Fuel Shipment
  - Low Specific Activity (LSA) Shipment
  - Radiopharmaceutical Shipment
  - Soil Density Gauge Shipment
  - Radiography Device Shipment
Training Process

• Work with Regional Government Groups, Tribal, State designate Points of Contact, and/or Local officials

• Scheduled through TEPP and posted on National Training Schedule

• Resources TEPP provides include:
  - Instructors
  - Training Materials
  - Shipping Costs
National Responder Training History

- FY 06 = 1639
- FY 07 = 2073
- FY 08 = 2698
- FY 09 = 2828
- FY 10 = 3241
- FY 11 = 1856*  
- FY 12 = 2340

* A work slow down from budget concerns from May until July resulted in reduced training numbers for 2011.
MERRTT

- **Base Training Program - MERRTT**
  - Used to address training weaknesses identified in the Needs Assessment
  - 16 modules and embedded video clips
  - 5 hands-on practical exercises
  - Can be integrated into existing HazMat curriculum or delivered as a stand-alone course
Enhancements in Training

• Additional training courses now offered to address the advanced skill levels of responders
  – Technician Level MERRTT
  – Radiation Specialist Program

• Based on end-user feedback, these additional courses include more hands on activities to reinforce learning
Technician MERRTT (TMERRTT)

- TMERRTT course 8 hours with drills
  - Patient Handling & Decontamination
  - Accident Scene Survey & Mapping
  - Lost Source Survey
Radiation Specialist

• Developed based on feedback from end-users who wanted more advanced level of training
• Many HazMat Teams were sending members to Radiation Safety Officer training
• TEPP used NFPA 472 Annex G as the source of the course competencies
• RS course 40 hours with drills
  - Accident Scenario
  - Instrument Response
  - Lost Source Survey
History of TEPP Exercise Program

- Drill-in-a-Box scenarios were developed in 1998
- TEPP has conducted over 30 full-scale exercises using these scenarios
- Responders have become more advanced in their knowledge and abilities
- TEPP has worked to keep up with the changing skill levels by enhancing the training and exercise programs
• Members of our TEPP support staff are HSEEP Train-the-Trainer certified

• TEPP reformatted the Drill-in-a-Box exercise scenarios to make them HSEEP compliant in 2008
  – Having our exercises HSEEP compliant allows the hosting jurisdiction to take credit for a DHS exercise and to use DHS funding for components of the exercise
  – The TEPP exercise scenario templates are posted on the TEPP website in Microsoft Word format, allowing easy customization
TEPP Exercises

- TEPP strives to ensure exercises are realistic
  - Use of live fire, if possible
  - Victim moulage
  - High activity (live) radiation sources
  - Accident vehicles
Past Exercises

• Acoma/Laguna/Cibola County, NM
  – After performing Needs Assessment we learned of a Mutual Aid Agreement that existed between 2 Tribal governments and the adjoining county government
  – TEPP conducted an exercise designed to test this agreement
  – The Tribal police and fire departments were the first responders; they called for assistance from the county HazMat Team
Past Exercises

- West Valley, New York
Past Exercises

- Lehigh Valley International Airport
Past Exercises

- Lincoln, NE
TEPP Exercises

- TEPP planning, training, and exercises have paid off in real-world events
TEPP Implementation Process

1. Determine Applicability
2. Conduct Needs Assessment
   - Identify Procedures/Plan Weaknesses
   - Identify Training Program Weaknesses
     - Adopt Model Procedures
     - Conduct Responder Training
   - Conduct Drills to Validate Procedures & Training
     - No Weakness Identified
     - Determine Frequency - Repeat as Necessary
     - No Weakness Identified
Internet Resources

• The TEPP web site provides one-stop shopping
  ✓ MERRTT Training Schedule
  ✓ 24-Hour Points of Contact
  ✓ Needs Assessment
  ✓ Model Procedures
  ✓ Exercise Planning Resources
  ✓ TEPP Regional Coordinators

http://www.em.doe.gov/otem
Questions