



U.S. Department of Energy  
Office of Environmental Management  
Transportation Emergency Preparedness Program



**2010 Annual Report**



### *Executive Summary*

The mission for the Transportation Emergency Preparedness Program (TEPP) is to ensure federal, state, tribal, and local responders have access to the plans, training, and technical assistance necessary to safely, efficiently, and effectively respond to radiological transportation accidents. To support this mission TEPP has formed strong partnerships over the last 15 years with state, tribal and local response organizations, Federal agencies and other national programs integrating TEPP planning tools and training into a variety of hazardous materials preparedness programs. These partnerships have resulted in states and tribes either using all or portions of the TEPP resources in their programs. Many have adopted the TEPP training program, Modular Emergency Response Radiological Transportation Training (MERRTT), into their hazardous material training curriculums to assist them in preparing their fire departments, law enforcement organizations, hazardous materials response teams, emergency management officials, public information officers and emergency medical technicians to respond to a radiological transportation accidents.

This Fiscal Year (FY) 2010 DOE TEPP Annual Report highlights events, outreach, partnerships and training where TEPP has proven to be integral in building radiological response capabilities of states and tribes that may need to respond to radiological incidents. To help build those capacities, TEPP promotes state and tribal implementation by providing responders who successfully complete a MERRTT Train-the-Trainer (T3) course with the tools and knowledge to integrate MERRTT into their state, tribal, or local training programs.

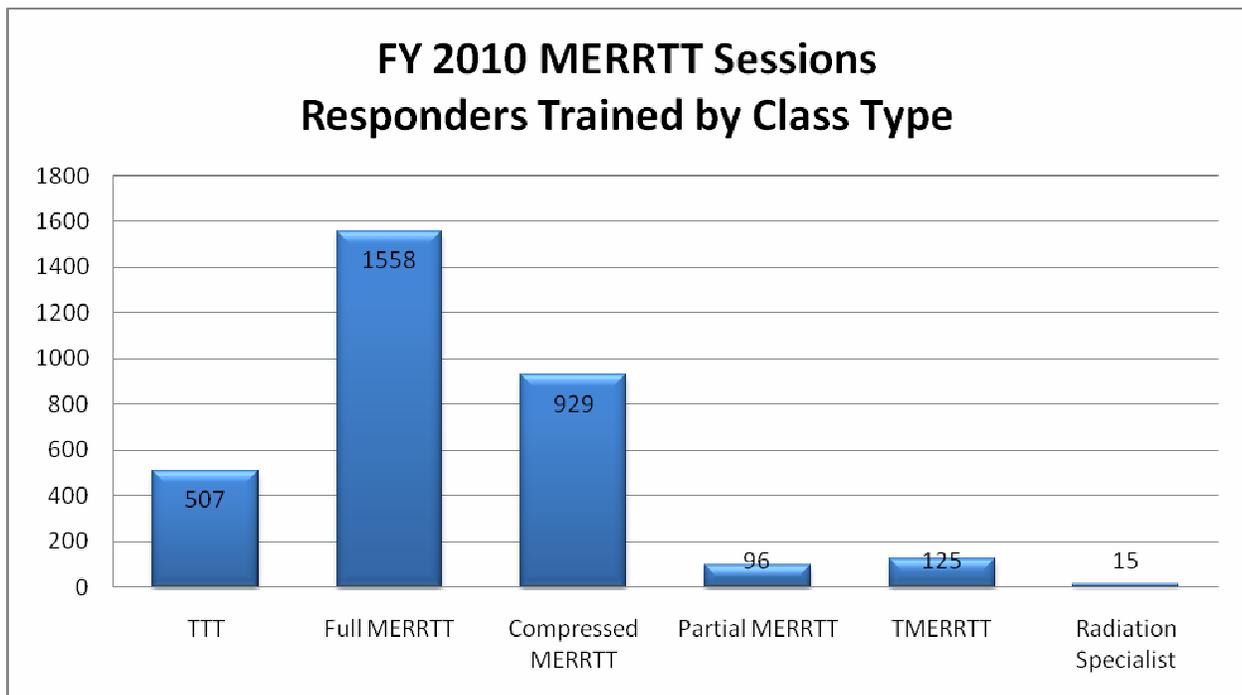
TEPP has proven to be an effective and growing preparedness resource across the nation. The increasing use of TEPP training and planning tools and the success of the various partnerships are strong indicators TEPP has been and will continue to be a very useful DOE program for emergency responders across the United States.

TEPP FY 2010 major achievements include:

- Finalizing the Technician MERRTT and Radiation Specialist courses and partnering with states and other federal agencies to conduct pilot courses.
- Completing significant changes to the TEPP Needs Assessment and automating the new electronic version making it available to response organizations via the TEPP web site.
- Being recognized—following actual incidents—as instrumental in having provided training to responders allowing them to make better decisions during the radiological exercise.
- Strengthening partnerships with DOE Radiological Assistance Programs (RAP) and the Waste Isolation Pilot Plant (WIPP) to provide TEPP resources, technical assistance, and MERRTT courses along DOE shipping corridors.



- Partnering with the Federal Emergency Management Agency (FEMA) on updating the booklet *Radioactive Materials Transportation and Incident Response; Questions and Answers About Incident Response* “Q&A booklet.” TEPP sent the booklet out to representatives from the Regional Governors’ Groups for comments. Comments were incorporated and the booklet was finalized in 2010. The Q&A Booklet can be downloaded from the TEPP website at [www.em.doe.gov/otem](http://www.em.doe.gov/otem).
- Partnering with state and tribal instructors and with RAP and WIPP instructors to provide 175 MERRTT courses, resulting in 2,892 responders being trained. An additional 338 responders received training through 22 state taught courses that incorporated all or portions of MERRTT. Of those responders attending MERRTT courses, 919 received medical continuing education hours for their participation. The chart below illustrates the attendance per course type. Details on MERRTT courses conducted in FY 2010 can be found in Attachment A.



- Providing TEPP training or presentations at 24 national, regional, or local conferences and workshops. TEPP staff handed out student training CDs, Emergency Responder Radioactive Material Quick Reference Sheets, TEPP brochures, and discussed planning and training for response to transportation incidents involving radiological materials with interested state, tribal, and local responders. Conferences and workshops supported by TEPP can be found in Attachment B.



# TEPP 2010 Annual Report

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## OVERVIEW – TRANSPORTATION EMERGENCY PREPAREDNESS PROGRAM

The Transportation Emergency Preparedness Program (TEPP) is a Department of Energy (DOE) complex-wide program that integrates transportation radiological emergency preparedness activities under a single program to address the emergency response concerns of state, tribal, and local officials affected by the Department’s radiological shipments. The goal of TEPP is to establish consistent policies and implementing procedures, build public and institutional confidence, and prepare jurisdictions to respond effectively to a radiological transportation incidents. TEPP technical assistance helps states and tribes meet an array of hazardous materials transportation and emergency response regulations, rules, requirements, and orders. A variety of TEPP tools, such as needs assessments, model procedures, training and exercise scenarios are available for state and tribal authorities to use in building their radiological response programs. All of the tools can be found on the TEPP website: [www.em.doe.gov/otem](http://www.em.doe.gov/otem).

### Needs Assessment

The web-based Needs Assessment tool allows community officials to determine the readiness of their emergency response organizations to respond to a radiological incident. The Needs Assessment identifies response strengths, as well as planning and training areas that need improvement. The assessment tool is designed to evaluate the procedures and capabilities of emergency response elements including emergency management agencies, emergency communications centers, hazardous materials teams, fire response organizations, law enforcement response organizations, and emergency medical services and care facilities. The 2010 revisions included additional questions to better determine a community’s readiness for response to a radiological incident and expanded categories to better assess each emergency response organization. The revisions still allow the user to answer a series of questions pertaining to the emergency response discipline that is being assessed. The answers are referenced to an internet-hosted database; the information is automatically cross referenced within the database and a report is generated that identifies the organization’s strengths and improvement areas.

Hazardous Materials Team Procedures and Capabilities

DEPARTMENT OF ENERGY

1. Does the County have a Hazardous Materials Team?  
 Yes  No  
 Discussion

2. If you are considering adding a Hazardous Materials Team, have you completed a self-evaluation as outlined by EPA Regulation 540 G-90 003?  
 Yes  No  
 Discussion

3. Has the Hazardous Materials Team been trained to the OSHA 29 CFR 1910.120 Technician Level?  
 Yes  No  
 Discussion

4. Has the Hazardous Materials Team been trained for response to radioactive material incidents/releases?  
 Yes  No  
 Discussion

5. Has the Hazardous Materials Team been trained for response to transportation incidents involving radioactive material?  
 Yes  No  
 Discussion

6. Are the Hazardous Materials Team's services available 24-hours a day, 7 days a week?  
 Yes  No  
 Discussion



## Model Procedures

Model Procedures are another key component of TEPP. Based on improvement areas identified in the Needs Assessment, response organizations can use the TEPP Model Procedures to address any gaps or weaknesses. The procedures can be modified and incorporated into the everyday operation of the organization. TEPP Model Procedures include:

- Model Annex for Emergency Response to a Radiological Transportation Incident
- First Responder Initial Response to Radiological Transportation Accidents
- Hazardous Materials Incident Response
- Properly Handling and Packaging Potentially Radiologically Contaminated Patients
- Medical Examiner/Coroner on the Handling of a Body/Human Remains that are Potentially Radiologically Contaminated
- Radioactive Material or Multiple Hazardous Materials Decontamination
- Model Recovery Procedure for Response to a Radiological Transportation Incident

## Training

In 2010, TEPP addressed comments from end users and stakeholder organizations by expanding the training programs being offered to emergency responders across the United States. TEPP now offers training courses that are divided into distinct topic and delivery options starting at a basic level and progressing to an advanced level of training targeted at hazardous materials response teams and radiation authority personnel. By establishing training prerequisites, each course is designed to target specific types of emergency responder audiences.

One new training program implemented in 2010 is the Technician MERRTT. The radiological competencies found in the National Fire Protection Association (NFPA) standard 472 (NFPA 472) in addition to recommendations received from states and tribes were used to formulate the objectives for the TMERRTT courses. The TMERRTT course was piloted in 2010 and is now a part of the TEPP course offering.

TEPP courses now available include:

- ***MERRTT Overview:*** Designed to be delivered in a 1 to 3-hour block at conferences and addresses at a basic level, how emergency responders should prepare for response to radiological transportation accidents. The course explains the TEPP comprehensive approach to planning and training. The presentation details the available readiness assessment tools, planning tools including model plans and procedures, exercise scenarios, and the various levels of training offered through TEPP.
- ***Understanding Radiological Threats in Your Community:*** Designed to be delivered during a 1 to 3-hour workshop at conferences, reviews case histories (theft, malicious intent, and transportation accidents) of actual radiological incidents. Through the use of actual incident pictures, props, and radioactive sources, students will participate in an interactive discussion about how they can recognize, detect, and protect themselves and their community from radiation and contamination.



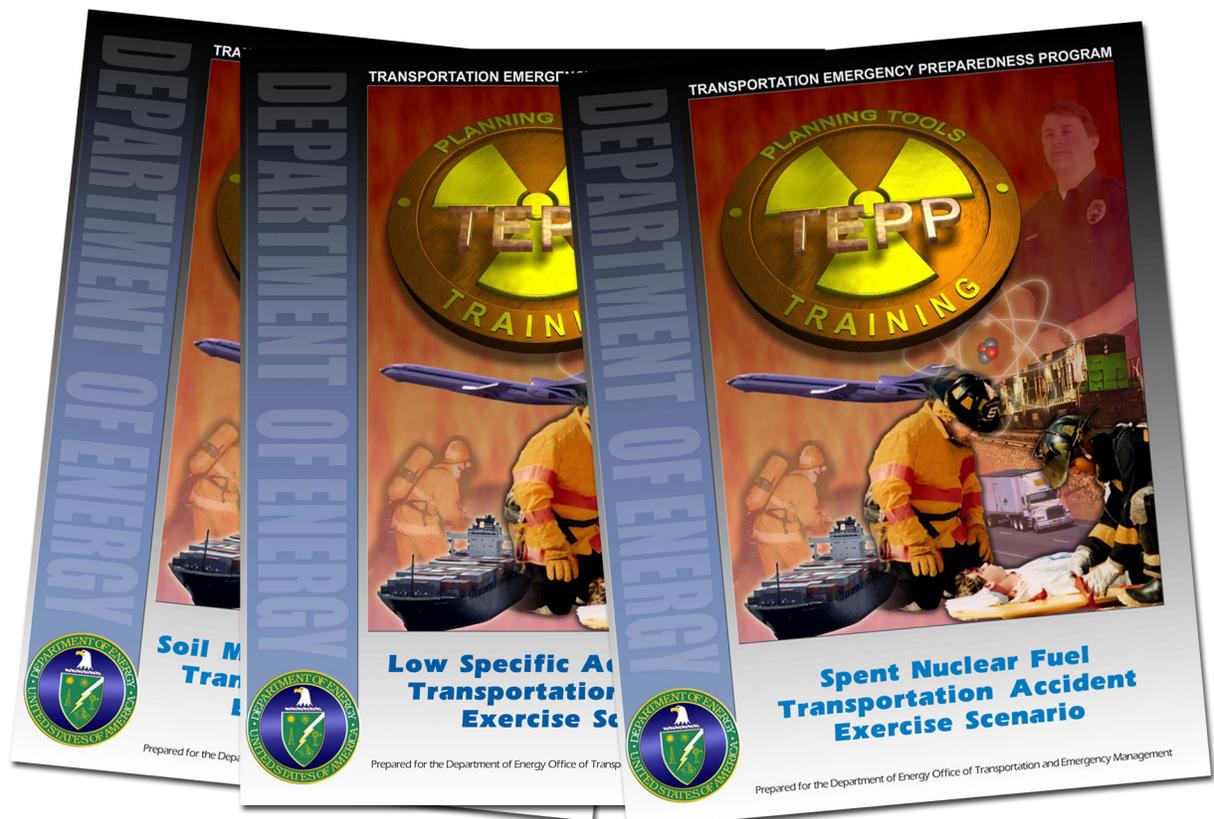
- ***Compressed Modular Emergency Response Radiological Transportation Training (CMERRTT):*** An 8-hour training course designed for audiences who have completed previous radiological response training. The course consists of eight 30-minute modules and four hands-on practical exercises, providing a comprehensive review to ensure an understanding of radioactive material, radiological survey instruments, and decontamination techniques for handling radiologically contaminated victims.
  
- ***Radioactive Material Incident Response Simplified, Modular Emergency Response Radiological Transportation Training:*** This 16-hour training course is designed to take the complex topic of a radiological accident response and break it down into 16 easily understood modules and hands-on practical exercises. Students will be presented with the training to simplify the topic while developing a comprehensive understanding of radioactive material, radiological survey instruments, decontamination techniques for handling radiologically contaminated victims, and resources available to responders during a response. An important element of the training is detailed information on the types of packages used to transport radioactive material. The course includes use of “live” radiation sources in the practical exercises to reinforce learning. MERRTT meets the WIPP Land Withdrawal Act training requirements and is listed on the Department of Homeland Security Federal Approved Courses Listing.
  
- ***Technician Level Modular Emergency Response Radiological Transportation Training (TMERRTT):*** This 8-hour technician training program is aligned with the specific radiological competencies listed in NFPA 472 for a Technician Level and Agent Specific responder. The course content includes advanced level training on instrument operation, radiological detector selection, and limitations. In addition to the classroom training, students using their incident command system will participate in three field drills.
  
- ***Independent Study Modular Emergency Response Radiological Transportation Training (ISMERRTT 302):*** Serves as refresher training for those students already proficient in radiological response, and is available through the Federal Emergency Management Agency (FEMA) Independent Self-Study website (<http://training.fema.gov/EMIWeb/IS/IS302.asp>).
  
- ***Radiation Specialist Training Program:*** This 40 hour training is designed to meet Annex G of the National Fire Protection Association (NFPA) Standard 472 “*Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents.*” Technicians with a radioactive material (Class 7) specialty provide support to the hazardous materials technician on the use of radiation detection instruments, and are expected to have the ability to manage the control of radiation exposure and conduct hazards assessment at an incident involving radioactive materials.
  
- ***Radiological Training for Hospital Personnel (FEMA G-346):*** Working with FEMA, TEPP revised the G-346 FEMA course. This 8-hour course is designed to introduce hospital medical care providers to ionizing radiation, the biological effects of ionizing radiation, facility preparation, radiological instrumentation, patient decontamination, and patient care/treatment. Upon completion of the classroom training, care providers



will participate in a hands-on exercise for handling patients who have been exposed to ionizing radiation and/or are contaminated with radioactive material. The modular design of the program has been structured so non-medical care providers (e.g., maintenance, security, etc.) can attend the first 3 or 4 modules and then return in the afternoon for the hands-on exercise. This course is provided in support of TEPP and WIPP sponsored exercises.

### Exercise Planning Resources:

During 2010, TEPP revised the existing Drills-in-the-Box (exercise scenarios). The revision was based on Homeland Security Exercise Evaluation Program (HSEEP) recommendations. By revising the TEPP scenarios, TEPP can easily comply with the recommended HSEEP format that local, state, tribal, and federal governments are required to comply with when conducting Department of Homeland Security grant-funded exercises. The TEPP Drills-in-the-Box materials can be used by jurisdictions to conduct tabletops, drills, and exercises for radiological transportation emergencies. The Drills-in-a-Box materials are offered in an editable Microsoft Word format and provide basic instructions on all aspects of event preparation. The accident scenarios provided with each exercise scenario may be expanded or contracted to demonstrate some or all aspects of a response by one or more agencies. In addition, TEPP uses exercises to verify emergency responders can effectively implement their procedures and demonstrate skills learned during training. TEPP partners with States, Tribes and other Federal agencies to support a variety of drills, tabletop exercises, practical exercises, and full-scale exercises.





## TEPP TRAINING AND EXERCISES MAKE A DIFFERENCE

During FY 2010 DOE sponsored or co-taught with States or Tribes 175 training sessions, resulting in 2,892 responders being trained along DOE transportation corridors.

An additional 338 students completed MERRTT training conducted by only state or tribal MERRTT certified instructors during 22 locally sponsored MERRTT classes or other radiological training courses which incorporated portions of MERRTT. Throughout the nation MERRTT courses resulted in a total of 999 emergency medical technicians or hospital personnel being awarded medical CEH's for their successful completion of MERRTT courses. Details about MERRTT courses conducted in FY 2010 are shown in Attachment A.



The following examples illustrate how state, tribal, and local response organizations are partnering with TEPP to incorporate MERRTT into their radiological preparedness programs and build their response capacity.

**Philadelphia, Pennsylvania – TEPP Training Project:** After meeting with representatives from the Philadelphia Fire Department to discuss training needs, a four step approach to prepare the hazardous materials teams for the City of Philadelphia was developed. The plan was to train all levels of responders from the initial engine company responder up to all members of the hazardous materials team. The unique aspect about this project was the involvement of training responders in all three levels of the TEPP training program (MERRTT, TMERRTT, and Radiation Specialist). The first step was to conduct a MERRTT Train-the-Trainer in October 2009 for members of the fire department training staff. As part of the training project, Philadelphia Fire Department committed to train 15 members of their training staff as MERRTT instructors. Step two involved an instructional partnership between the fire



department instructors and TEPP representatives with the goal of training over 400 fire fighters from the nation's fifth largest fire department. To further enhance the training, TEPP customized the radiological instrument module by including specific information about the organization's radiological instruments. The training project began in February of 2010. Over the next three months, the Philadelphia Fire Department training staff assisted the TEPP instructors in conducting 21 sessions, training approximately 480 hazardous materials team responders. Step three will involve TEPP continuing to work with the Philadelphia Fire Department training staff and the hazardous materials team members to conduct a series of TMERRTT sessions. The fourth and final step will be to conduct a Radiation Specialist session. Both the TMERRTT and Radiation Specialist sessions are scheduled to be conducted in December 2011. The partnership between the Philadelphia Fire Department and TEPP demonstrated a willingness by a stakeholder to commit resources to plan, coordinate, and conduct the needed training. Philadelphia Fire Department provided the additional instructors, training facilities, and coordination for the training sessions. This partnership proved to be a very cost effective for both the fire department and TEPP.



**Student practices surveying techniques during a MERRTT session**

**San Diego, California – 2010 Tribal Lands Forum, MERRTT Awareness Session:** In August 2010, TEPP representatives attended the 2010 Tribal Lands Forum. The forum was co-sponsored by the Institute for Tribal Environmental Professionals, National Tribal Waste and Response Assistance Program Steering Committee, and the U.S. EPA Office of Solid Waste and Emergency Response. During the conference, TEPP representatives participated in a panel discussion and provided information on TEPP resources and technical support available to Tribes. In addition, TEPP Overview training was also conducted during the conference. TEPP has extensive experience working with numerous tribal leaders and organizations. This was a unique opportunity for TEPP as we were able to provide TEPP outreach for many of the over 400 Tribal management officials attending the conference.

**Jackson, Mississippi MERRTT Training Project** – During February 2010, TEPP representatives partnered with officials from the Jackson Fire Department and trainers from the Waste Isolation Pilot Plant (WIPP) to plan and conduct 12 consecutive MERRTT sessions over a four week period. The Fire Department identified a need to have all their members participate in the MERRTT program. By conducting the training sessions over four consecutive weeks, TEPP was able to offer the training multiple times to responders working the ABC rotating shift schedule. With the help of the Jackson Fire Department Training Officer who assisted in teaching the MERRTT sessions, over 280 responders were trained during the month. TEPP plans to conduct maintenance MERRTT session in the spring of 2011. These follow up MERRTT sessions will be offered to recently hired responders and responders needing a refresher training session.

### TRAINING DEVELOPMENT ACTIVITIES

#### Technician Level MERRTT

**Course:** In 2010, TEPP completed development of the Technician MERRTT (TMERRTT) course which addresses the radiological competencies found in NFPA 472. The development of this course came as a result of NFPA 472 adding a series of radiological competencies to the 2008 revision of 472 (released in 2009). The new competencies are found in Annex D of 472 and are titled: *Competencies for Responders Assigned Radiological*



Students in the Topeka, KS TMERRTT class get pointers from an instructor on radiological survey techniques

*Agent-Specific Tasks*. The course was developed using input from representatives of the Regional Governors' Groups and then vetted through stakeholder reviews and piloted in Lincoln, Nebraska and Kansas City, Kansas. Fifty-five responders participated in the TMERRTT pilots and provided positive course feedback.

Following TMERRTT pilot sessions, the materials were updated to eliminate duplication, streamline module content, and finalize practical exercises. Recommendations from both students and instructors at the Lincoln, Nebraska and Kansas City, Kansas courses along with input from stakeholders were used to make revisions to the course materials prior to finalizing the course.

**Radiation Specialist Training Program:** The TEPP Radiation Specialist course was developed to meet the advanced needs of responders and address the new competencies found in the NFPA 472 *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*. At the request of the Chicago Bomb Squad and in partnership with



Students in the Radiation Specialist class compare radiation surveys results using different types of instruments

Argonne National Laboratory (ANL), TEPP partnered with Region 5 RAP and ANL to conduct the Radiation Specialist Training Session July 12-16, 2010 at ANL in Argonne, Illinois. The course was taught for metro area Chicago Hazardous Material Teams and the Chicago Bomb Squad. The partnership with ANL allowed students to practice with actual radiation sources and use their own instrumentation to conduct surveys in radiation fields.



## EXERCISE ACTIVITIES

TEPP collaborates with states, tribes and other federal agencies to support drills, and tabletop, practical, and full-scale exercises to verify that emergency responders can effectively implement their procedures and demonstrate skills learned during training. TEPP supported the following exercises during FY 2010.

### **Topsfield, Massachusetts – MERRTT T3 and Field Exercise:**

In January 2010, TEPP partnered with the Massachusetts Division of Fire Safety to provide a MERRTT T3 and conduct a simple field exercise in Topsfield, Massachusetts.

The exercise scenario involved one accident victim and a vehicle transporting 18 various types of radioactive material packages. The victim was injured and the scenario required responders to practice the double blanketing method to



A participant in the Topsfield, MA exercise does an assessment of radioactive material packages that have been scattered around the accident scene

remove the victim from the hot zone. The 18 packages were scattered around the accident scene and several were damaged as a result of the accident. Representatives from the Massachusetts Radiation Authority participated with the numerous emergency response agencies to conduct scene surveys to determine radiation and check for contamination. Response activities included ensuring accountability for all the packages listed on the shipping papers. Twenty-four responders attended the T3 session and participated in the field exercise. Nineteen of those attending received medical CEH's for their participation. Each of the exercise participants commented on the usefulness of the training and the value of having the field exercise to close out the training. The Massachusetts Division of Fire Safety was also very pleased with the training results and they plan to request the next level of training, Technician Level MERRTT, for two of the Massachusetts Regional Hazardous Material Response Teams in FY 2011.

**Idaho Falls, Idaho – Preparation for Region 6 RAP's Road RAPTER Exercise:** Six partial MERRTT courses were conducted for the Idaho Falls Fire Department to refresh them for potential response to increasing numbers of WIPP shipments and to prepare them for DOE Region 6 RAP's Road RAPTER exercise. The refreshers included reviews of radiological basics, patient handling, hazard recognition, and included in-depth use of survey instrumentation. In addition to the training, students completed three practical exercises directed at instrument use and hazard recognition. Fifty-one responders successfully completed the training with 12 receiving medical CEH's. The refreshers, which targeted members of the Regional Response Team, were taught by MERRTT instructors from RAP and the Idaho Falls Fire Department.

As a validation of the training, TEPP supported the Region 6 RAP Road RAPTER Exercise at Melaluca Field in Idaho Falls, Idaho.



**Lincoln, Nebraska – Operation Cornhusker Exercise:** TEPP supported the March 15, 2010, Operation Cornhusker Exercise held in Lincoln, Nebraska. The exercise was a joint effort between Nebraska Emergency Management Agency (NEMA), Lincoln Fire Department and TEPP. In preparation for the exercise and to determine agency training and operational needs, a TEPP Needs Assessment was completed for each agency participating in the exercise (see *Outreach and Technical Assistance* section below). The Regional TEPP representative completed exercise planning and issued the final draft of the Controller/Evaluator Handbook for Operation Cornhusker prior to the exercise. Training in preparation for the exercise included a four-hour version of the FEMA/DHS Radiological Hospital training which was attended by St. Elizabeth Medical Center and Bryan LGH Medical Center Staff. In addition, TEPP instructors taught several MERRTT awareness level modules and demonstrated the patient packaging practical exercise for six Lincoln Fire and Rescue first responders. Training Captains for the Lincoln Fire Department also completed the MERRTT Train the Trainer and incorporated MERRTT into their training programs—subsequently teaching the course to other first responders within the Fire Department.

The exercise scenario involved a multi-vehicle accident that began on Interstate 180 when the driver of a sedan slammed on brakes to avoid collision with a car traveling much slower. One of the vehicles involved in the multi-vehicle accident was a van operated by a radioactive waste broker company. In the accident, the van operated by the waste broker flips over and packages containing various radioactive materials are dislodged and ejected from the vehicle.



A small black drum, containing several sources, is breached and the sources are scattered around the accident area. A canister carrying uranyl nitrate is propelled into the front of the vehicle, and breaks open as a result of the accident. The driver and passenger are contaminated by the yellowish radioactive powder that is released in the cab of the van. Contamination (except for cross-contamination caused during patient handling) is primarily contained within the van. All other radioactive sources released, other than the uranyl nitrate, are special form materials, and are radiation hazards, but do not create additional contamination.

The exercise was conducted on Monday, March 15, 2010, with positive results and two local news stations reporting on the event. While improvement items were noted all objectives were satisfactorily met. DOE Region 5 TEPP drafted a detailed report on all exercise activities and then met with exercise leaders from participating agencies to present the After Action Report (AAR). TEPP also filmed the exercise and produced a video of the exercise play.



**Kapolei, Hawaii – MERRTT T3 in Preparation for Region 7 Road RAPTER Exercise and Kaimalu O’ Hawaii (KOH) Port Security Exercise:** The TEPP mission includes providing radiological transportation training to states, tribes and other federal agencies. In support of that mission, TEPP conducted a MERRTT T3 course for the 93rd Civil Support Team (CST) out of Honolulu, Hawaii. The training was at the request of the CST Operations Officer who was working with Region 7 RAP to prepare for a RAP Road RAPTER Exercise and the KOH Port Security Exercise. In coordinating the Road RAPTER Exercise, RAP recommended to the CST Operations Officer that radiological training prior to the event may be beneficial for agencies participating in the upcoming exercises. Upon review of the TEPP training options, it was determined the T3 course would be an excellent fit not only for exercise preparation but to allow the CST to incorporate MERRTT into their outreach activities in Hawaii.



Oahu responders join the 93rd Civil Support Team for a MERRTT Train-the-Trainer course in Kapolei, Hawaii

The MERRTT T3 course was by MERRTT instructors from Region 6 TEPP and Region 7 RAP in April 2010. The two-day course included training on radiological basics, biological effects, packaging, hazard recognition, initial response actions, radiological contaminated patient handling techniques, incident control, instrumentation, decontamination, and public information responsibilities, as well as, instructor techniques and

responsibilities for new MERRTT trainers. In addition to the 93rd CST, responders from the 9th CST out of California attended the training, as well as, representatives from a variety of response agencies in the Honolulu area including U.S. Coast Guard, 18th Medical Command (Fort Shafter, Honolulu), Defense Threat Reduction Agency, Honolulu Fire Department and the Honolulu Police Department. A total of 38 trainers from the participating agencies successfully completed the T3. The CST trainers completing the T3 planned to incorporate MERRTT materials into their outreach efforts and include applicable modules from the course in their radiological training for Fire, Law Enforcement, Emergency Management and military personnel throughout the Hawaiian Islands.



## ACTIVITIES WITH FEDERAL AGENCIES AND OTHER NATIONAL PROGRAMS

In addition to activities with states and tribes, TEPP actively pursues opportunities to partner with federal agencies and other national programs in areas related to homeland security and preparedness for radiological events. These strong partnerships provide a mechanism for TEPP to support other national preparedness efforts and to integrate the MERRTT program into training provided by federal agencies and other national programs helping to ensure consistency of radiological response curriculums delivered to responders. Programs incorporating the DHS approved MERRTT courses into their hazardous materials training have recognized significant cost efficiencies and are highlighted below.

### **Federal Emergency Management Agency:** TEPP

has partnered extensively with FEMA during the last few years to accomplish tasks such as the development of a Hospital Course (FEMA Course G-346) for hospital personnel who may be involved in responding to incidents involving



# FEMA

potentially radiologically contaminated patients. FEMA has also adopted the MERRTT modules as independent study courses and have made them available as self-study courses posted on their Emergency Management Institute website. In FY 2010 TEPP partnered with FEMA to finalize the FEMA Question and Answer (Q&A) Booklet issued by FEMA to help increase understanding of radiological materials. FEMA utilized TEPP's relationship with numerous stakeholder organizations to solicit comment on the draft Q&A Booklet. TEPP coordinated a review with representatives from each of the Regional Governors' Groups to seek comment and input on the draft FEMA Q&A Booklet. Numerous comments from stakeholders were submitted and TEPP incorporated those comments into the final version of the Q&A Booklet which can be found on the TEPP webpage.

**DOE Radiological Assistance Program:** During FY 2010 strong partnerships between TEPP and the corresponding RAP Regional Response Teams provided opportunities for collaboration on radiological transportation training and outreach activities which meets the goals of both programs. MERRTT modules were integrated into RAP outreach and training programs and were used to train responders both on and off DOE's transportation corridors. During this fiscal year, TEPP continued to grow its partnership with the RAP Regions by working with the different RAP Regional Training and Outreach Coordinators. TEPP coordinated the involvement of five different RAP Regions in numerous TEPP activities. These activities included training program support in Regions 3, 6, and 7. In Regions 1 and 5, RAP also assisted TEPP by providing radioactive material source support for the TMERRTT and Specialist class in Philadelphia and Chicago. TEPP also partnered with representatives from RAP Regions 5 and 6 on radiological exercises that were performed in FY 2010. Several of the RAP Training and Outreach Coordinators also acted as subject matter experts on training program development and revisions.



**DOE National Laboratories:** To meet a request from the INL Fire Department, TEPP partnered extensively with Region 6 RAP, the State of Idaho Department of Environmental Quality, Idaho State Police, Idaho Falls Fire Department and the INL Fire Department to teach monthly MERRTT courses until all fire stations at the INL had received MERRTT training. In addition partnerships with Region 7 RAP at the Nevada National Security Site (NNSS) provided opportunities for NNSS trainers to become MERRTT certified instructors and incorporate MERRTT into their training program for firefighters at the NNSS. Emergency response personnel from the communities surrounding the INL and NNSS were invited to the respective courses and participants expressed appreciation for the opportunity to meet and mingle with National Laboratory firefighters. This cross organizational support is invaluable in building networks and providing fire department staffs with insight into the workings of other departments and response organizations. Off-site course participants noted the interactions and connections forged between their agencies and the site firefighters would be very valuable in a joint response. This value gained by the forging of relationships is a consistent theme among participants at MERRTT courses throughout the nation.

**Waste Isolation Pilot Plant:** TEPP and WIPP instructors regularly partner to provide MERRTT courses in support of existing or new WIPP routes. Courses are offered to response agencies along DOE's primary transportation corridors or to those agencies with reciprocal agreements with response agencies along primary corridors. When WIPP opens new routes or as TEPP identifies training needs along existing WIPP routes the two programs collaborate to plan and schedule courses. The strong partnership between the two DOE programs results from years of collaboration on development of the MERRTT curriculum and ensures consistency of messages being brought to first responders. Over the past few years WIPP has increased shipments and opened corridors in both the eastern and western United States significantly increasing the number of MERRTT courses being conducted by both WIPP and TEPP. FY 2010 WIPP training partnerships are noted in the Training section above.



**Health Physics Society:** The Health Physics Society (HPS) is a scientific organization of professionals who specialize in radiation safety. Its mission is to support its members in the practice of their profession and to promote excellence in the science and practice of radiation safety. The Society's 6,000 members represent all scientific and technical areas related to radiation safety including academia, government, medicine, research and development, analytical services, consulting, and industry in all 50 states and the District of Columbia. The Society also promotes public information preparation and dissemination, education and training opportunities, and scientific information exchange. For the past several years TEPP has been partnering with the Health Physics Society by delivering MERRTT Train the Trainer sessions at a variety of venues including their mid-year meetings and annual conferences. The HPS lists the TEPP materials on their website as a training resource for HPS members. HPS members use the TEPP training materials in their outreach efforts. In FY 2010, a TEPP representative attended the 43rd Midyear Meeting in Albuquerque, New Mexico. The topical meeting was focused on *Radiation Risk Communication to the Public*. Communicating radiation risk and risks posed by



DOE-owned shipments of radioactive materials to members of the general public and emergency response agencies is an important component of the TEPP training materials. TEPP participated in the lectures on topics in radiation risk communications at the meeting. TEPP continues to collaborate with the HPS and assist in providing Train-the-Trainer sessions at HPS meetings.

**National Labor College, Silver Springs, MD** TEPP has been partnering with the National Labor College (NLC) and the numerous unions that train at the college since 2005. As NLC trainers become MERRTT certified they have been active in using MERRTT at the NLC. These NLC trainers have conducted numerous training sessions during the past five years. Through the NLC, the various unions have developed a “Rail Union MERRTT.” The one day class is taught by NLC Hazardous Material instructors that have completed a MERRTT T3. As part of the continued partnership with the NLC Rail Workers Hazardous Materials Program TEPP instructors regularly partner with the NLC to present the course which is scheduled to be presented to rail employees across the nation. Union trainers are taking the Rail Union MERRTT back to their work locations and providing the training, as needed, to local railroad workers or responders. In FY 2010 TEPP instructors partnered with hazardous material instructors to train 77 future instructors.

#### **TRANSCAER Whistle Stop Tour (WST) – Mobile to Muscle Shoals, Alabama:**

The 2010 TRANSCAER® (Transportation Community Awareness and Emergency Response) Whistle Stop Tour (WST) is a national outreach partnership effort that focuses on assisting communities to prepare for and to respond to hazardous material transportation incidents. The TRANSCAER® WST is operated by representatives from the chemical manufacturing industry,



transportation companies, distributors, and emergency response industries, as well as several different government supporting agencies. In September of 2010, TEPP and RAP representatives supported the annual TRANSCAER WST hosted by Norfolk Southern Railroad and the TRANSCAER partners. The 2010 tour began in Mobile, Alabama and traveled through McIntosh, Selma, and Jasper with the final stop in Muscle Shoals, Alabama. During the WST the TRANSCAER partners provided training on transportation and plant type chemical emergencies. At each stop, TEPP and RAP representatives met with responders and provided information on the TEPP and RAP programs and conducted a one-hour training session on radioactive shipping packages and hazard recognition in the Norfolk Southern Coach Car. An average of 150 emergency services responders participated at each WST location.



## **PROGRAM DIRECTION AND FUTURE OPPORTUNITIES**

To help meet emergency management policy and program development needs and to meet the needs of first responders as they prepare for response to radiological transportation incidents TEPP will continue to effectively apply TEPP related activities to achieve greater agency and responder preparedness. Within the constraints of available funding TEPP will continue collaborative activities with RAP, WIPP and state, tribal and local response organizations and with other federal agencies focusing on:

- Integrating DOE, RAP, state, tribal and local MERRTT trainers as key instructors in MERRTT course delivery throughout the DOE complex.
- Maximizing cost efficiencies through utilizing TEPP Central Operations for production, control, and distribution of training materials.
- Emphasizing exercises as the key element in demonstrating readiness for responding to radiological transportation incidents.
- Continue the development and offering of standards based training programs.
- Enhancing communications to educate and inform responders, emergency managers and the general public about radiological transportation.
- Cultivating working relationships and maintaining liaison relationships with other Federal Agencies.



**2010 Annual Report**  
 Department of Energy  
 Transportation Emergency Preparedness Program



**ATTACHMENT A**

**FY 2010 MERRTT COURSES CONDUCTED**

Region	City	State	# Classes	TTT	Full	Compressed	Partial	TMERRTT	Specialist	Total	CEH	DOE/State
1	Baltimore	MD	1	25		13				38	14	DOE
1	Central Harbor	NH	1			21				21	0	State
1	Clarion	PA	1		11					11	2	DOE
1	Erie	PA	1		8					8	1	DOE
1	Fort Monmouth	NJ	1	13	3					16	12	DOE
1	Harrisburg	PA	1		16					16	2	DOE
1	Jersey City	NJ	4	17	53					70	13	DOE
1	Jessup	PA	1			6				6	0	State
1	Lempster	NH	1		18					18	0	State
1	Lewisburg	PA	1			21				21	0	State
1	Lycoming County	PA	1			11				11	0	State
1	New Ipswich	NH	1			17				17	0	State
1	Newbury	MA	1		35					35	0	State
1	Philadelphia	PA	21		459	2	26			487	91	DOE
1	Picatinny	NJ	1	25						25	12	DOE
1	Pitcairn	PA	1		2					2	2	DOE
1	Schuylkill County	PA	1			8				8	0	State
1	Silver Springs	MD	3	78						78	0	DOE
1	Sunbury	PA	1			11				11	0	State
1	Topsfield	MA	1	24						24	17	DOE
1	Windham	NH	1		24					24	0	State
1	Wolfeboro	NH	1				7			7	0	State
<b>Totals</b>			<b>47</b>	<b>182</b>	<b>629</b>	<b>110</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>954</b>	<b>166</b>	
2	Memphis	TN	3			90				90	38	DOE
2	Fall Branch	TN	1			4	16			20	2	State
2	Johnson City	TN	1			2	12			14	2	State
2	Jackson	MS	10		280					280	30	DOE
2	St. Louis	MO	3	56						56	17	DOE
2	Kansas City	MO	1	13						13	0	DOE
2	Brandon	MS	1	4	13					17	7	DOE
2	Ripley	WV	1	5	3					8	2	DOE
2	Manchester	TN	1	12						12	5	DOE
2	Meridian	MS	1		7					7	1	DOE
2	Knoxville	TN	1	10						10	5	DOE
2	Bristol	TN	1				2			2	1	State
2	Signal Mountain	TN	1				17			17	0	State



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Region	City	State	# Classes	TTT	Full	Compressed	Partial	TMERRTT	Specialist	Total	CEH	DOE/State
<b>Totals</b>			<b>26</b>	<b>100</b>	<b>303</b>	<b>96</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>546</b>	<b>110</b>	
3	Macon	GA	3		37					37	0	State
3	Anniston	AL	1	23						23	0	DOE
3	Charlotte	NC	1	11						11	3	DOE
3	Dawson County	GA	1		15					15	12	DOE
3	Decatur	GA	2		54					54	18	DOE
3	Raleigh	NC	1		42	1				43	0	State
3	Wilmington	NC	1	26						26	5	DOE
3	Blythewood	SC	1			11				11	0	DOE
3	Greenville	SC	3	48						48	14	DOE
3	Aiken	SC	1			10				10	5	DOE
3	Canton	GA	1		35					35	16	DOE
3	Shelby	NC	1			3				3	0	DOE
3	Madison	GA	1		5					5	0	DOE
3	Orangeburg	SC	1	6	13	1				20	0	DOE
3	Lincolnton	NC	1			25				25	15	DOE
3	Athens	GA	3	1	41					42	10	DOE
3	Helfin	AL	1		4					4	0	DOE
3	Rockdale	GA	5	1	109	2				112	71	DOE
3	Springville	AL	1		9					9	3	DOE
3	Thomson	GA	2		16					16	10	DOE
<b>Totals</b>			<b>32</b>	<b>116</b>	<b>380</b>	<b>53</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>549</b>	<b>182</b>	
4	Carlsbad	NM	3	1	11					12	2	DOE
4	Kansas City	KS	1					27		27	0	DOE
4	Longview	TX	1			1				1	0	State
4	Moriarty	NM	1		7					7	2	State
4	Pantego	TX	1			18				18	0	State
4	Topeka	KS	3					43		43	0	DOE
<b>Totals</b>			<b>10</b>	<b>1</b>	<b>18</b>	<b>19</b>	<b>0</b>	<b>70</b>	<b>0</b>	<b>108</b>	<b>4</b>	
5	Lincoln	NE	3		59			55		114	16	DOE
5	Seward	NE	1			15				15	8	DOE
5	Grand Island	NE	1			7				7	7	DOE
5	Scottsbluff	NE	1			11				11	3	DOE
5	Holdrege	NE	2			17				17	10	DOE
5	Hartington	NE	1			14				14	4	DOE
5	Chicago	IL	1						15	15	0	DOE
<b>Totals</b>			<b>10</b>	<b>0</b>	<b>59</b>	<b>64</b>	<b>0</b>	<b>55</b>	<b>15</b>	<b>193</b>	<b>48</b>	
6	Ammon	ID	1			24				24	1	DOE
6	Boise	ID	2			6	9			15	15	DOE
6	Idaho Falls	ID	3		26	50				76	40	DOE



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Region	City	State	# Classes	TTT	Full	Compressed	Partial	TMERRTT	Specialist	Total	CEH	DOE/State
6	Caldwell	ID	3			10				10	10	DOE
6	Coeur d'Alene	ID	2			21				21	17	DOE
6	Pocatello	ID	4			49				49	44	DOE
6	Tooele	UT	1	17						17	5	DOE
6	Sandpoint	ID	1			1				1	1	DOE
6	Salt Lake City	UT	1	44						44	0	DOE
6	Ogdon	UT	1				7			7	1	DOE
6	Fort Hall	ID	3			22				22	11	DOE
<b>Totals</b>			<b>22</b>	<b>61</b>	<b>26</b>	<b>183</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>286</b>	<b>145</b>	
7	Santa Fe Springs	CA	3			73				73	15	DOE
7	Stanford	CA	1			18				18	4	DOE
7	Las Vegas	NV	2	9	2	19				30	16	DOE
7	Elko	NV	4		21	21				42	24	DOE
7	Sparks	NV	6			70				70	44	DOE
7	Virginia City	NV	2		12					12	10	DOE
7	Wells	NV	2		12					12	5	DOE
7	Reno	NV	8			99				99	49	DOE
7	Winnemucca	NV	1		12					12	2	DOE
7	Lockwood	NV	2		15					15	11	DOE
7	Lakewood	NV	1		3					3	3	DOE
7	Nevada City	CA	2		15					15	1	DOE
7	Stockton	CA	1		14					14	9	DOE
7	Auburn	CA	2			18				18	6	DOE
7	Truckee	CA	1		24					24	15	DOE
7	Fernley	N	2		13					13	6	DOE
7	Kalpolei	HI	1	38						38	3	DOE
7	Incline Village	NV	3			34				34	15	DOE
7	Verdi	NV	2			13				13	9	DOE
7	Carson City	NV	2			12				12	12	DOE
7	Sacramento	CA	2			27				27	5	DOE
<b>Totals</b>			<b>50</b>	<b>47</b>	<b>143</b>	<b>404</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>594</b>	<b>264</b>	

<b>DOE Totals</b>		<b>175</b>	<b>507</b>	<b>139 5</b>	<b>808</b>	<b>42</b>	<b>125</b>	<b>15</b>	<b>2892</b>	<b>919</b>
<b>State Totals</b>		<b>22</b>	<b>0</b>	<b>163</b>	<b>121</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>338</b>	<b>0</b>
<b>Program Totals</b>		<b>197</b>	<b>507</b>	<b>155 8</b>	<b>929</b>	<b>96</b>	<b>125</b>	<b>15</b>	<b>3230</b>	<b>919</b>



**ATTACHMENT B**  
**WORKSHOP AND CONFERENCE TRAINING LIST**

<b>Date</b>	<b>Region</b>	<b>Conference/Meeting/Workshop</b>	<b>Location</b>
Oct-09	2	Oak Ridge Regional Emergency Management Forum	Oak Ridge, TN
Nov-09	6	National Hazardous Materials Fusion Center Symposium	Denver, CO
Dec-09	3	Southern States Energy Board Meeting	Savannah, GA
Jan-10	4	Radiological Shipping Risk Management Conference	Phoenix, AZ
Mar-10	4	Waste Management 2010 Conference	Phoenix, AZ
Mar-10	7	Firehouse World Conference	San Diego, CA
May-10	1	Pennsylvania Fire Expo	Harrisburg, PA
May-10	3	International Hazardous Materials Conference	Baltimore, MD
May-10	6	Utah Governor's Public Safety Summit	Ogden, UT
May-10	7	Emergency Management Issues Special Interest Group	Las Vegas, NV
May-10	All	National Transportation Stakeholders Forum	Chicago, IL
May-10	8	Hazardous Materials & Special Operations Conference	Wenatchee, WA
Jun-10	3	South Carolina Firefighters Conference	Myrtle Beach, SC
Jun-10	6	Annual Health Physics Society Meeting	Salt Lake City, UT
Aug-10	1	Region III Environmental Protection Agency (EPA) Conference	Baltimore, MD
Aug-10	3	Georgia Fire Chiefs/Firefighters Conference	Savannah, GA
Aug-10	6	Fort Belknap Indian Community & EPA Region 8 Conference	Billings, MT
Aug-10	7	2010 Tribal Lands Forum	San Diego, CA
Sep-10	1	Pennsylvania Radiological Assistance Program Conference	Harrisburg, PA
Sep-10	3	TRANSCAER Whistle Stop Tour	Mobile, McIntosh, Selma, Jasper, Muscle Shoals, AL
Sept-10	1	Pennsylvania Emergency Management Agency Annual Conference	Lancaster, PA
Sep-10	4	Annual Emergency Medical Services Expo	Dallas, TX
Sep-10	6	Sacramento Continuing Challenge	Sacramento, CA
Oct-10	7	National Emergency Managers Conference	Little Rock, AR