

Philadelphia 1999 Meeting

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The Transportation External Coordination (TEC) Working Group held its 15th semi-annual meeting July 14-15, 1999 in Philadelphia, Pennsylvania. Over 150 members, participants, and observers representing state, tribal, and local governments, regional groups, industry and professional organizations, and the Department of Energy (DOE) met to address a variety of issues related to DOE's transportation activities for radioactive materials. A number of Departmental programs with transportation components were represented, including: the Office of Environmental Management (EM); the Office of Civilian Radioactive Waste Management (including the Yucca Mountain Project Office) (RW & YMPO); the Office of Naval Reactors (NR); the Waste Isolation Pilot Project (WIPP); and the Office of Defense Programs (DP).

Welcome and Meeting Overview

Participants were greeted by Philadelphia Fire Commissioner Harold Hairston and by Director of Operations and Training for the Pennsylvania Emergency Management Agency, Jon Bahnweg.

Commissioner Hairston emphasized the continued need for ongoing training and exercises:

- He noted that the World Trade Center and Oklahoma City bombings raised the importance of continuous training for emergency services; as a result Philadelphia is now more prepared to respond to a terrorist and/or a radiological emergency.
- The City now has 40 fire companies supplied and trained to use radiological detection equipment and a total of 99 fully trained HAZMAT personnel.
- Philadelphia is addressing HAZMAT training for the medical community because the City also operates the EMS system.

Mr. Bahnweg reiterated the importance of training and exercises to the Commonwealth of Pennsylvania:

- As the Governor's designee for advance notification for high-level shipments, he expressed a keen interest in DOE and private shipments of materials such as spent nuclear fuel.
- In Pennsylvania there are 5 nuclear power plants and 9 reactors; the State has upwards of 860 licensees.
- Pennsylvania has 25 'at risk counties; there are 71,000 firefighter and 24,000 fire departments and large numbers of state police that need to be trained to respond to a transportation emergency.

Topic Group Reports

TRAINING/MEDICAL

Fire Chief Bill Ruting (La Grange, IL, Fire Department) presented the results of the topic group's discussions:

- The MERRTT (Modular Emergency Response Radiological Transportation Training) series, comprised of 16 modules, is in the process of being finalized and pilot tested in a number of locations in the U.S.

- Pilot testing will include: using a needs assessment tool; developing model procedures; and actual training delivery of the MERRTT modules.
- The topic group, working with the regional government group staff representatives to TEC/WG, has sent a survey to State points-of-contact to determine the best mechanism and media for distribution of the training materials. The survey should be completed by September 1999.
- Other activities include: merging the training and medical issues training topic groups in order to take a look at training materials for medical personnel; developing an information brochure that describes the MERRTT training modules system; and developing a U.S. radiological transportation emergency response guide that parallels the North American Emergency Response Guide.
- MERRTT Modules 1-4 will be piloted in a self-study format and a facilitated format at this meeting.

COMMUNICATIONS

Ken Niles (State of Oregon) presented a summary of the communications topic group's discussions.

- The survey paper on local government notification was finalized. The final version was available at the main meeting and will be posted on the TEC/WG webpage in PDF.
- The group completed its final review of six redrafted fact sheets. These have been printed and are available through the DOE's EM Information Center (1-800-EM-DATA) and/or through the University of New Mexico's Transportation Resource Exchange (1-877-287-TREX).
- The topic group asked DOE to contact the Executive Directors of all relevant TEC/WG member organizations and confirm continued interest and points-of-contact.
- The topic group is in the process of developing an information matrix detailing all DOE-produced, TEC/WG member and TEC/WG-produced information and material on transportation; this will be added to the TEC/WG webpage.
- The issue of the development of a transportation protocol on public information during an incident was discussed. The topic group would like to consider this issue and develop a "strawman" based on what has been done for the WIPP shipments.
- The group reviewed a revision of the National Transportation Program's Communications Plan.

TRANSPORTATION PROTOCOLS

Mona Williams (National Transportation Program (NTP)/DOE-AL) summarized the topic group's discussions.

- The group was formed to review and provide input on the DOE's initiative to examine its transportation practices and standardize them where possible.
- When the project started there were seventeen issue areas being examined: pre-notification; pre-shipment planning; emergency plans; routing; inspections; public information; carrier-driver requirements; training; security; equipment tracking; weather/road conditions; safe-parking/safe/havens; accident notification; emergency response; crisis communication; remediation; and post-shipment.
- At this meeting three draft protocols were discussed: pre-shipment planning; pre-notification; and routing.
- Finally, the topic group reviewed its schedule and re-prioritized its listing of issues to be addressed.

RAIL ISSUES

Bob Fronczak (American Association of Railroads) presented the final rail topic group report.

- The topic group is closed. The topic group has completed its final project, a rail companion to the WIPP Program Implementation Guide (WIPPIG), comparing safety and equipment issues as they relate to highway and rail shipments. The final document was available at the meeting.
- A brief summary of the reports' findings are: (1) the rail mode is a closed transportation system with economic incentives built into its safety innovations; (2) there is good and close cooperation between the industry and its regulators; (3) there is a strong safety benefit to multiple carrier arrangements (i.e. frequent crew changes, specific training on specific areas of track); (4) the Federal Rail Administration's State Rail Participation Program works as a safety check in states; (5) and the two layered rail response system is designed to integrate into local response.
- Version 1.0 of this paper was available at the meeting and on the TEC/WG webpage.

TRIBAL ISSUES

Kevin Blackwell (U.S. Department of Transportation/Federal Rail Administration) (DOT/FRA) presented an overview of the topic group's discussion.

- The status of the DOT/FRA's response to DOE's inquiry about the tribal right to inspect rail shipments is still an open issue. At the time of the July meeting, the response was in the final stages of review in the Secretary of Transportation's Legal Division. The response will be forwarded to DOE's Office of Civilian Radioactive Waste Management. The draft response is an opinion letter, not a formal ruling, focusing on the issue of preemption. DOT has recently undertaken a "One DOT Initiative;" which includes a new DOT order that lays out a DOT Tribal Policy. The final Order is due in the fall of 1999.
- The NRC's Advance Notice of Proposed Rulemaking on Tribal Notification Federal Register notice is being finalized. The Notice will be forwarded to the Commission in later in the summer.
- DOE is in the process of updating its 1992 tribal policy. A letter has been sent to tribal leaders setting up a framework for revision of this policy.
- Information was requested on how other federal agencies deal with ceded and treaty lands (lands that may be physically removed from reservation lands, by treaty or by other means).
- Topic group members requested commodity flow information, by rail, though or nearby tribal lands. Kevin Blackwell, Federal Rail Administration, offered to assist tribes in obtaining this information by working with the Regional FRA contacts and the railroads.

DOE Program Summaries

Transportation Safeguards Division, Albuquerque Operations Office

Ms. Cindy Longenbaugh described the TSD mission: supporting national security interests through the safe and secure movement of nuclear weapons to and from military locations, and movement of strategic quantities of special nuclear material. It is headquartered in Albuquerque, with modification facilities, courier sections, training locations, maintenance facilities, and SECOM relay stations located throughout the United States. Shipping and receiving occurs at over two dozen facilities across the lower 48 states.

Shipments are carried in armored tractor and a Safe Secure Trailer (SST). The tractor used is a highly modified Marmon, with ballistic protection and communications and tracking equipment. The SST trailer is crash resistant, with ballistic and thermal protection and deterrent systems on-board. Shipments are accompanied by a modified van as an escort vehicle. The escort has command and control authority through the use of communications and tracking equipment. Prior to each mission the tractor and the trailer undergo the equivalent of a DOT annual inspection prior to departure.

Escort vehicles are driven by TSD Special Agents, who must meet rigorous physical training requirements, obtain driver certification for the tractor and trailers used on a yearly basis, express a willingness to use

deadly force if necessary to protect the shipment, and demonstrate knowledge and skills of special agent operations.

Office of Defense Programs/Tritium Project Office

The next presenter was Ms. Elizabeth Helvey. She noted that she was speaking on behalf of Mr. Lew Steinhoff who was unable to attend. The Office produces and transports tritium as part of the Commercial Light Water Reactor (CLWR) Project. Tritium boosts the yield of a weapon, allowing use of less special nuclear material and making weapons smaller and lighter. There are currently two sets of transportation activities being planned simultaneously by the Tritium Project Office; activities pertaining to Lead Test Assemblies (LTAs) and activities related to production. The program has 4 shipments of LTA's scheduled for the summer of 1999, with the first completed in early July 1999. Leading up to these scheduled shipments, the program had issued a Draft Transportation Implementation Plan, which was distributed to states and tribes along the perspective shipping routes. Over 130 comments were returned to DOE and helped program managers in developing transportation plans. The next shipment was scheduled for late July, with two additional shipments in August and September 1999.

Foreign Research Reactor Spent Nuclear Fuel Program

The next program update was provided by Ms. Judith Holm (National Transportation Program (NTP)/DOE-AL) representing the FRR SNF program. The program mission is to return foreign research reactor spent fuel containing uranium enriched in the U.S. The fuel will be shipped from 41 countries and managed in the U.S. Approximately 20 metric tons of aluminum-based and non aluminum-based spent fuel and target material; the non-aluminum based fuel (approximately 1 ton) will be shipped to Idaho/DOE-INEEL, with the other 19 tons of aluminum-based material shipped to Savannah River/DOE-SRS. The program operates under a 10-year acceptance policy (expiring in May 2006), with a 3-year final shipping period to elapse in May 2009. This timeframe should see the majority of highly enriched uranium (HEU) returned to the U.S.

To date there have been 10 shipments since September 1996: 8 to SRS via Charleston, S.C., 1 shipment overland to SRS from Canada, and 1 shipment to INEEL via Concord, CA. A total of 62 casks have been transported in these shipments. The next significant milestone for the program, is the first cross-country shipments of TRIGA spent fuel from Europe, Africa, South America, and Japan through Charleston and SRS to INEEL. This campaign should entail one or two cross-country shipments a year from 1999 through 2009. In addition, the program features domestic spent fuel shipments (all via truck to SRS); in FY 1998 32 shipments containing 314 spent fuel assemblies were received, primarily from universities and research installations, with 18 shipments received to date in FY 1999.

Office of Naval Reactors/Naval Nuclear Propulsion Program

The next presenter was Mr. Ray English. He provided an overview of the Naval Nuclear Propulsion Program. The program is an integrated effort by the Departments of Energy and Navy, and is tasked by statute with "cradle-to-grave" responsibility for the 105 operating reactors necessary for the propulsion of the 86 naval vessels in the nuclear-powered fleet. Program responsibilities include: research, development, and design; acquisition, specification, construction, and testing; operation, training, and maintenance; overhaul, refueling, and disposal; ensuring reactor safety, including provision of radiological controls and maintenance of environmental and public health standards; security and safeguards in transportation; and public information.

The safety record and spent fuel component of the program is an unblemished record in over 50 years of naval operations. This record includes 117 million miles safely steamed and 5,000 reactor-years. Since 1957, there have been 709 shipments of spent fuel have been moved without incident by rail in Type B containers; these containers are matched to a government-owned railcar and have been designed and tested

to withstand the equivalent of a 60 foot drop onto reinforced concrete, a 1475 degree (F) fire, and other severe conditions.

Office of Civilian Radioactive Waste Management (OCRWM)

The final speaker was Mr. James Carlson. Recent legislative activities may impact on OCRWM. H.R. 45 (introduced January 6, 1999) directs the Secretary of Energy to operate an interim storage facility in Nevada by June 30, 2003 and authorizes the Secretary to take title to spent fuel at reactor sites. Also, S. 1287, passed by the Senate Energy & Natural Resources Committee on June 16, 1999, which sets December 31, 2006 as the date by which to commence transportation of spent nuclear fuel and high level radioactive waste to the Yucca Mountain site.

A copy of the Yucca Mountain EIS preparation timeline was made available to participants. It detailed the anticipated issuance of the draft EIS (late July 1999), the following 90-day public comment period, and the anticipated release of the final EIS in late August 2000. The Draft EIS will be available to download at <http://www.ymp.gov>, or can be requested by calling 1-800-967-3477.

Mr. Carlson noted that he would close his remarks by presenting the Yucca Mountain brief that Ms. Jozette Booth was to deliver. Briefly, the concept, layout, and progress of the proposed Yucca Mountain repository were discussed. The discussion included presentation of a timeline which displayed the completion dates for major events such as the Environmental Impact Statement (2000), Site Recommendations (2001), the NRC Licensing Application (2002), and construction authorization (2005).

Discussion of Private Spent Nuclear Fuel Storage Initiatives and Transportation Issues

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Mr. Ivan Stuart (Nuclear Assurance Corporation (NAC)/ Project Manager for the Owl Creek Energy Project) presented an overview of the Owl Creek Energy Project.

- The project aims to develop, open and operate a private storage facility in central Wyoming. The facility would be sited on a 2700-acre parcel of land that is privately held but that the New Corporation has an option to purchase. A Burlington Northern Santa Fe Class 1 line crosses the property. Virginia Power is the Nuclear Regulatory Advisor to the corporation. The facility would use existing licensed storage technology.
- Mr. Robert Anderson (President of the New Corporation) gave a brief description of Wyoming and the project. Wyoming is the 5th largest state in the union with only 400,000 inhabitants. Cheyenne is the largest city at 64,000 people. Warren Air Force Base, in Cheyenne, holds the country's largest arsenal of nuclear weapons.
- NAC and the New Corporation understand that the people of Wyoming must accept this project or it cannot succeed. A current budget \$200 million shortfall, in Wyoming, has forced the State to look at other revenue sources. The State constitution does not allow the State government to borrow money. The Tax 2000 committee named the New Corporation's venture as something the state should consider as a revenue source.
- Wyoming also has two laws relating to the siting of an interim storage facility. The passage of these two laws was prompted by two earlier siting attempts in the state. The laws require the State Legislature to approve of any facility and the Legislature cannot approve such a facility until the federal government licenses a federal repository. In addition, 41 State legislators have or will visit Yucca Mountain, Nevada for a tour. Several will also visit the Surrey Nuclear Plant in Virginia to tour its dry storage facility.

Mr. John Vincent (GPU Nuclear/Private Fuel Storage Project) provided an update on Private Fuel Storage Project with the Skull Valley Band of the Goshute Indian Tribe.

- The Band is located in Utah, and they have been working with a consortium of utilities to site a private fuel storage facility. The project filed for a license application with the NRC in June 1997 for 40,000 MTU of spent nuclear fuel. The first Environmental Impact Statement scoping hearing was held in Salt Lake City on June 2, 1998. The NRC will hold scoping meetings until early 2000.
- The project has selected rail as its transport method. This will require building a rail line from the mainline in Utah, across Federal land, to the storage site.

Discussion on the Opening of the Waste Isolation Pilot Plant (WIPP): State and DOE Site Perspectives

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Ms. Rebecca Walker (Westinghouse/WIPP-CAO) presented an update on the WIPP facilities in Carlsbad, New Mexico on behalf of Mr. Jim Klaus.

- The first shipments were from Los Alamos (March 1999); Idaho (April 1999); and Rocky Flats (June 1999).
- Implemented in the current WIPP Transportation Plan were the Western Governors Association Transportation Safety Program Implementation Guide, the Southern States Energy Board's Transportation Planning Guide for Transuranic Waste, and the Commercial Vehicle Safety Alliance's (CVSA) Enhanced North American Inspection Program. DOE, States, and industry jointly developed all of these programs.
- Issues addressed and resolved were: timing of CVSA inspections; decision to ship; TRANSCOM problems; notification; law enforcement jurisdiction; weather; communications; and schedule uncertainties.

Mr. Chris Wentz (State of New Mexico/Western Governors Association) discussed the relationship between the State of New Mexico and DOE and the delays in the opening of WIPP.

- Mr. Wentz presented a number of reasons for delays such as: WIPP being a first of its kind facility; spent nuclear fuel and high-level radioactive waste were originally considered for shipment; the program was poorly coordinated; the WIPP-specific regulatory framework was not in place until 1992-1996.
- Mr. Wentz remarked that the State is optimistic about its future relationship with DOE based on: the agreement between DOE and the State Environmental Office; the anticipated issuance of the State permit in October or November 1999; and the fact that the transportation program goes beyond minimum standards in their shipments as evidenced by the success of the cesium and WIPP shipments.
- Other issues addressed included access to the TRANSCOM system; contamination on a recent incoming shipment (NM heard from the environmentalists before DOE); the missing vent cover on a WIPP shipment and the corrective actions taken by DOE.
- Mr. Wentz ended his presentation by saying that New Mexico recognizes the economic benefits of WIPP and the associated costs and that WIPP shipments will work if DOE and its contractors strictly adhere to all its safety procedures.

Mr. Keith Nelson representing the DOE- INEEL, briefly discussed the first shipment from INEEL to WIPP. He mentioned that TRANSCOM worked for them with only minor technical shortcomings.

- Mr. Craig Halverson (State of Idaho/INEEL Oversight Group) said that Idaho continues to expect DOE to meet its obligations to the State in shipping all radioactive material from DOE-INEEL. There are about 15,000 drums of waste to be moved by the end of 2002.

SUMMARY OF BREAKOUT SESSIONS

There were two breakout groups during this TEC meeting. Each breakout session had two subgroups. This was done to promote open discussion in the groups. The following presents a summary of both breakouts:

Discussion of Proposed Consolidated Transportation Grant

The breakout session for this meeting focused on discussion of a proposed consolidated transportation grant. Discussion facilitators began each session by reviewing the seven consolidated grant issue areas/topics discussed in the information distributed to all participants. Participants were asked to prioritize the issues/topics so that the remainder of the discussion could be focused on these priorities.

The discussion facilitator was assisted by DOE staff in clarifying issues and answering questions. Discussion facilitators referred participants to www.policycenter.com/fincalc (username: fincalc; password: numbercrunch) to test out various funding scenarios.

Much of the initial discussion focused on the proposed grant's objectives and actual total finding dollars. While participants agreed that equity was a laudable goal, many suggested that DOE clarify the goals, objectives and expected outcomes (performance goals/measurable goals) of this type of grant program.

Please refer to the full meeting minutes for a summary of the discussion from this session, loosely organized around the Consolidated Grant Worksheet distributed to all participants.

Emergency Management and Training Assistance

Two types of pilot training sessions were offered at this meeting; one self-study and the other instructor-led. Approximately 40-45 people attended each session. Both sessions piloted the DOE's Modular Emergency Response Radiological Transportation Training (MERRTT). The training has been developed as part of the Transportation Emergency Preparedness Program (TEPP). The materials were reviewed by the TEC/WG Training topic group and presented, in draft, during previous TEC/WG meetings.

The pilot training self study session was facilitated by Fire Chief Bill Ruting, LaGrange Fire Department. A "student workbook" was distributed to participants entitled "Modular Emergency Response Radiological Transportation Training (MERRTT)." This packet contained Modules 1 through 4, covering sequentially, Radiological Basics, Biological Effects on Ionizing Radiation, Hazard Recognition, and Initial Response Actions. Participants were instructed to review the material and take the self-tests at the end of each module. After that process was completed, an overall test of Modules 1-4 was given to participants. The facilitator invited participants to annotate and submit their remarks on the actual test and its format, structure, and purpose.

The pilot training instructor-led sessions were facilitated by Mr. Wilbur Smith and Mr. Rich Gale (Commonwealth of Pennsylvania Emergency Management Agency and by Mr. Dan Loomis (State of Oregon). The sessions were a teaching demonstration of the first four modules of the Modular Emergency Response Radiological Transportation Training (MERTT). Module topics were Radiological Basics, Biological Effects of Ionizing Radiation, Hazard Recognition, and Initial Response Actions. Please refer to the full meeting summary for comments on these modules.