

**U.S. DEPARTMENT OF ENERGY (DOE)
TRANSPORTATION EXTERNAL COORDINATION
WORKING GROUP (TEC) MEETING**

April 4-5, 2005 Phoenix, Arizona

Meeting Notes

Part I – Opening Remarks (April 4)

Welcome and Meeting Overview

Introduction

Judith Holm, DOE Office of National Transportation (ONT), Office of Civilian Radioactive Waste Management (OCRWM), called the meeting to order and welcomed the participants. She reviewed the agenda and called special attention to the plenary sessions being held in the afternoon. Ms. Holm also mentioned a few housekeeping items which included a reminder to fill out the evaluation form. Of particular interest on the evaluation form is feedback from the members on how they would like to conduct meetings in the future. She emphasized that DOE will be reviewing the feedback on the evaluation forms to determine the structure and content of future meetings. (See summary of the evaluations at end of these meeting notes.)

Summaries of the presentations at the plenary and topic group sessions are provided below. Corresponding presentations are provided separately at this website under “Presentations.”

State Welcome-Lori Faeth, Office of the Governor

A special welcome from the State of Arizona was presented by Lori Faeth, Policy Advisor for Natural Resources and the Environment, Office of the Governor, State of Arizona. Prior to Ms. Faeth’s current position in the Governor’s office, she was Director of Government Relations for the Nature Conservancy of Arizona. Ms. Faeth has experience in creating and passing funding initiatives for conservation at the state and local level, as well as developing public policy measures to further conservation. Ms. Faeth said the Governor’s office has a keen interest in the decisions being made at the TEC meetings, as these decisions will ultimately shape the outcome for the spent nuclear fuel shipments. As an active member of the Western Governors’ Association (WGA), Arizona wants the shipments to be safe and secure. Ms. Faeth also emphasized the importance of identifying the resources needed for these shipments. As a member of WGA, Arizona has supported WGA’s urgency for funding of resources. Ms. Faeth concluded her State welcome by encouraging the TEC participants to enjoy the most spectacular wild flower season Arizona has had in many years, as well as the Arizona Diamondbacks baseball games being played nearby.

Program Updates from OCRWM and EM

OCRWM Program Update

Gary Lanthrum, Director of ONT provided an update of the program. ONT is organized into two major Divisions: Operations Development and Infrastructure Development.

- The Operations Development Division is headed by Judith Holm, who was previously the Institutional Manager (still serving in this capacity). This Division is responsible for transportation planning, route analysis/selection, State and Tribal interactions, emergency planning and training, security and safeguards, the 180(c) grant process, institutional relations, and other operational aspects of the transportation system.
- The Infrastructure Development Division is headed by Ned Larson and is responsible for the planning and acquisition of transportation casks and rolling stock (train and truck systems) needed for shipments.

Mr. Lanthrum showed the historical funding for the OCRWM transportation program, noting the difference between requested funding for FY 2005 (\$187 million) and actual funding of \$25 million. The requested \$187 million was primarily for purchasing transportation casks (about 35 to 40 anticipated at time of budget request), as well as purchase of prototype rail cars and start of actual rail car production. Since the Yucca Mountain repository license application date has been moved out further, the need for these items is no longer there for FY 2005. With some additional carryover from FY 2004, the budget will be spent primarily on transportation planning activities and engagement with potentially affected Tribal nations.

Key accomplishments cited for FY 2004 include:

- Issuance of ONT's Strategic Plan
- Involvement of State Regional Groups in a meeting with the Undersecretary (and since then, receipt of project proposals for each State Regional Group)
- Received feedback from the cask vendor community
- Issuance of Record of Decision on mode of transportation and selection of a rail corridor for Nevada
- Selected managers for the ONT program
- Started the Nevada Rail Alignment Environmental Impact Statement (EIS)

Key activities for FY 2005 include:

- Focus on completion of Nevada Rail Alignment EIS
- Begin conceptual design work for cask and rail cars
- Announce decisions that will allow for more detailed operational planning discussions
- Initiate Tribal consultations
- Continue working with State Regional Groups on special projects and topic areas (e.g., route selection criteria, 180(c) policy development, and security planning)

Mr. Lanthrum then summarized the key activities underway and progress in infrastructure acquisition, operational planning, and institutional activities (see below).

Rail Line in Nevada – Public scoping meetings were completed in June 2004, and DOE received over 4,000 comments. Contracts were awarded to perform data collection for the EIS and to develop the conceptual design. The EIS will be extended slightly to collect data on some alternative routes identified during the public scoping process. The Final EIS is scheduled for completion in FY 2006.

Railroad Construction – Mr. Lanthrum reviewed the major components of constructing a new line in Nevada, including completion of the EIS, surveys, permits, design, earthwork, structures, and rail components (track, bridges, etc.). He showed a graphic depicting the differences in elevation over distance of the various alternatives being analyzed in the EIS, showing the Caliente Rail Spur as having the least abrupt peaks. (The State of Nevada representative noted his disagreement with the alternatives analyzed and the way the elevations over distance were represented.)

Casks – Discussions are underway between ONT and the Nuclear Regulatory Commission (NRC) to maximize use of available cask designs and NRC Certificates of Compliance for the casks. Coordination activities are also underway to ensure that casks are compatible with Yucca Mountain surface facilities. (There was some discussion of the need to make sure that old fuel and new fuel are scheduled and integrated in a certain way to meet criticality requirements of the repository facility.)

Cask capability assessment reports received from vendors indicate that only 30 percent of fuel eligible for shipment could be accommodated by existing casks. For DOE sites, cask hardware exists, but there is a gap in meeting certification requirements.

ONT plans to issue a Request for Proposals (RFP) to cask vendors to solicit input on approaches for casks to incorporate a broader range of the eligible spent nuclear fuel inventory at facilities with infrastructure limitations. Awards will be made for conceptual design tasks for required new or modified casks.

Rolling Stock – ONT is working to develop its policy on implementation of the Association of American Railroads (AAR) standard for rail car shipping. ONT plans to procure 120 cask cars, 60 buffer cars, and 30 escort cars. Locations for the Fleet Management Facility and supporting facilities are being evaluated in the Nevada Rail Alignment EIS. Design work on the Fleet Management Facility has been deferred because of the FY 2005 budget reduction.

Operational Planning Activities – Operational planning is focusing on: continuing burn-up credit data collection and analysis, developing the optimization model for transportation planning, supporting modeling tools, such as RADTRAN and TRAGIS, and review of regulations and policies that will ensure best practices are incorporated into the program.

Security Activities – This area is focused primarily on identifying risk management options for transportation security (with an emphasis on sabotage studies, threat analyses, and personnel security and training).

Institutional Activities – ONT is continuing to work with the State Regional Groups on development of routing criteria and a route selection methodology, recommendations for implementing the 180(c) grant process, and special project support. TEC Topic Groups continue

to be active, and recent activities included the following: added participants to the Security Topic Group, expanded the Tribal Topic Group to include more Tribes, and conducted training for the Routing Topic Group in use of the modeling tools. It was noted that work on updates to the Transportation Protocols and development of detailed operational plans will follow key policy decisions.

EM Program Update

Dennis Ashworth, Director of the DOE Office of Environmental Management's (EM) Office of Transportation, provided an update of EM transportation activities, highlighting EM's successful experience in safe transportation of radioactive materials.

EM's Experience in Shipping Radioactive Waste – Mr. Ashworth showed on a map the network of intersite transfers of radioactive wastes and materials that have taken place under the EM program, emphasizing the complexities of the various transfers. This network involved shipments from the various generator sites within DOE to storage, treatment and disposal facilities at the Waste Isolation Pilot Plant (WIPP) in New Mexico (for disposal of transuranic waste), Hanford Site in Washington (for storage of naval spent fuel), Envirocare in Utah (for low-level radioactive waste disposal), and other inter-DOE site transfers. In FY 2004 alone, over 20,000 shipments were made, utilizing both highway and rail; and over 40,000 are projected through the end of FY 2005.

Progress and Outlook in Transuranic (TRU) Waste Disposal – Since March 1999, EM has made close to 3,500 truck shipments from 8 sites to WIPP, plus shipments of small-quantity waste from 7 sites. (Mr. Ashworth showed the truck routes that have been used.) Rocky Flats shipments will be completed in April 2005, with a total of about 2,000 shipments made. EM will meet the Idaho Settlement Agreement milestone of 6,000 cubic meters by the end of FY 2005. EM will ship as much TRU from the Nevada Test Site as possible by the end of 2005, and will work with Los Alamos National Laboratory to resume shipments. Competitive procurements are underway for carrier services and for an oversight office in Carlsbad.

Organization – Mr. Ashworth stressed that safety is the critical focus of the EM transportation program, and safety has been institutionalized within the EM Office of Transportation. The key organizational elements in the office are:

- Transportation Risk Reduction
- Legislative and Regulatory Compliance
- Site Support and Logistics
- Emergency Preparedness
- Outreach

In January 2005, the National Transportation Program was transferred from Albuquerque to Headquarters, with TRANSCOM transferred to Carlsbad.

Risk Prioritization – In discussing safety as a critical focus, Mr. Ashworth noted that a risk prioritization methodology allows EM to focus its efforts on the potentially higher risk movements. To demonstrate the methodology, he showed a chart that includes a ranking methodology for each shipment campaign, with rankings assigned according to: type of material

to be shipped, volume of material to be transported, number of annual shipments, trip distance, population exposure, and prior year incident rates.

Coordination with States and Tribes in Planning Shipments – Mr. Ashworth discussed the various ways DOE coordinates with and assists States and Tribes in preparing for DOE shipments. These include:

- DOE provides highly skilled emergency response teams that are available 24/7.
- Through the Transportation Emergency Preparedness Program (TEPP), States and Tribes can get assistance in planning, training, and drills.
- EM continues its dialogue with States and Tribes in the following: commodity flow survey, TRANSCAER workshops, and regional State cooperative organizations.

Transportation Performance – EM is committed to tracking and communicating its transportation performance. A key performance metric is number of transportation incidents per 10,000 shipments. Mr. Ashworth went over the criteria for an “incident,” which include any release of radioactive material, injury or fatality, property damage, fine or violation, damage to the package, route deviation, security breach, road closure, evacuation, and media coverage.

In FY 2004, EM had 23 reported off-site incidents. The most significant was a release of radioactive material onto road surfaces at Oak Ridge. Improperly secured loads and shipping paper violations were other types of incidents. The incident rate for FY 2005 was 11.5 incidents per 10,000 shipment miles. Management is reviewing these incidents. Key areas noted for improvement are human error and training. In FY 2005 to date, EM has had 5 reported incidents, which constitutes a 44 percent reduction in incidents from the same time last year.

Part II – Plenary Sessions (April 4)

Plenary I – Panel on Transportation Communication

Transportation Emergency Preparedness Program (TEPP)

An overview of DOE’s TEPP was provided by Ella McNeil, Transportation Specialist, DOE/EM, Office of Transportation. TEPP provides assistance to State, Tribal, and local emergency response officials in preparing for emergencies that could occur during transport of hazardous and radioactive materials. Ms. McNeil’s presentation focused on TEPP’s role in transportation communications and emergency response training and exercises.

Ms. McNeil first reviewed the definition of communication and hazard communication. She provided examples of the types of hazard communications involved in radioactive shipments, including identification markings, labels, and placards; shipping papers; and manifests. She also provided examples of the documentation that TEPP makes available to State, Tribal, and local officials to help them prepare for emergencies. These include the Emergency Management Guidebook, which serves as the “Bible” for emergency responders; DOE Manual 460.2-1,

Radioactive Material Transportation Practices Manual; and various other documents and TEPP planning and training tools available on the TEPP website at www.em.doe.gov/otem.

Ms. McNeil expanded on some of the planning and training/exercise tools available through TEPP. These include the following:

Case History Links – TEPP has collected case history information on transportation incidents that have occurred during shipments of radioactive material. These are available on the TEPP website. For each incident listed, TEPP identifies the date and location, the emergency contact, and a description of the incident. This information can be used by instructors during training or in developing scenarios for drills and exercises.

MERRTT – MERRTT is a series of emergency response training modules (Modular Emergency Response Radiological Transportation Training) available through TEPP. There are 12 Day-One training modules, ranging from radiological basics and hazard recognition to incident control and radiological survey instruments and dosimetry devices. There are 6 Day-Two training modules that include topics such as decontamination, disposal and documentation, as well as transportation by rail and transportation of safeguards materials. After completion of the training, students are provided hands-on practical exercises. Ms. McNeil noted that the Department of Homeland Security (DHS) has reviewed and accepted the MERRTT training modules into the listing of Federal courses available for States to employ consistent with State strategies. The National MERRTT master training schedule is maintained on the TEPP Website. The MERRTT program maintains a student database of training and provides a MERRTT instructor patch for instructors after they have completed their first MERRTT class.

TEPP Emergency Points-of Contact – The TEPP Website includes a listing of TEPP emergency points-of-contact for each State, organized by eight TEPP regions in the United States.

Exercises – Ms. McNeil briefly discussed the role that TEPP plays in the conduct of emergency exercises. She mentioned, for example, that TEPP teamed with WIPP and conducted an emergency exercise in Georgia the week prior to this TEC meeting. Reports on the TEPP exercises are located on the TEPP website.

Naval Reactor Spent Fuel Shipments

A discussion of the Naval Reactor spent fuel shipment program, with an emphasis on the role of communications, was provided by Barry Miles, Manager, Shipping Containers and Spent Nuclear Fuel Transportation, DOE/NR, Office of Naval Reactors (Pittsburgh Naval Reactors).

Mr. Miles started his presentation with a brief background about the U.S. Naval Nuclear Propulsion Program and its role in spent nuclear fuel transportation. The Naval Nuclear Propulsion Program is responsible for all aspects of the reactor plants on the U.S. Navy's nuclear powered warships. The program has been shipping spent nuclear fuel in the continental United States by rail in support of those reactors since 1957. The Office of Naval Reactors has shipped 762 containers of Naval spent fuel over the past 48 years, without accident, incident or any radiological release. Mr. Miles showed photos of the casks loaded onto a train (3 casks) and photos of one of the emergency exercises held. He identified accident exercises that have been held, including the following: 1996 in Washington/Oregon; 1998 in Virginia

(Tidewater area); 2000 in Idaho with the Shoshone-Bannock Tribes; 2002 in Maine/New Hampshire; and 2004 in Kansas.

He mentioned that a key shipping practice (that also plays into the program's accident exercises) is the fact that each of their shipments is accompanied by their own program escorts who are expected to serve as instantaneous responders in the event of an accident or off-normal event involving a shipment. The accident exercises provide an opportunity for outreach with civilian authorities who might become involved in an accident involving a Naval spent fuel shipment. They also provide those external stakeholders the opportunity to learn about the shipments and think through the emergency response procedures. Mr. Miles noted the importance of exercising a realistic scenario. With the structural stability and strength of the casks, the Naval program does not believe a breach to the cask is a realistic scenario. Mr. Miles concluded his presentation by emphasizing the communication links necessary for a coordinated effective response between shipper, carrier, and civilian authorities.

Comments and Questions

One participant raised the issue of using dedicated trains vs. mixed freight trains for shipping Naval spent fuel. He noted that while not required to use dedicated trains, the Naval program has used them. Will the railroads start requiring use of dedicated trains? Mr. Miles said that in the 30 years of shipping spent fuel, the program was not required to use dedicated trains. In his view, regular freight at prevailing train speeds is the safest way to move spent nuclear fuel. However, the Naval program is sensitive to the railroads' desire to have the heavy rail cars (carrying the casks) located at the front of the train instead of at the rear, where they have been placed in the past. The problem is that the lighter escort caboose is in the rear, and the Naval program wants the casks next to the escort caboose. The Naval program recognizes that it will likely have to move more and more spent fuel in dedicated trains until it can get new and heavier escort cars. The same participant stated that there are limits to how much of the Naval spent fuel shipment program is directly relevant to direct rail shipments of OCRWM spent fuel to Nevada – that DOE is talking about super large rail car casks.

Recent Studies of the National Academies

Kevin Crowley, Director of the National Academies, provided an update on two recent National Academy of Sciences (NAS) studies – *The Safety and Security of Commercial Spent Nuclear Fuel Storage* and *The Transportation of Radioactive Waste*. *The Spent Nuclear Fuel Storage Study* was requested by the 2004 Energy and Water Development Conference Committee and sponsored by the NRC and the Department of Homeland Security. Two reports were requested from this study: a classified report issued to Congressional committees and sponsoring agencies on July 15, 2004, and a public report which has been delayed in its release. The statement of task included the following:

- Potential safety and security risks of spent nuclear fuel presently stored in cooling pools
- Safety and security advantages of dry cask storage versus wet pool storage at reactor sites
- Potential safety and security advantages of dry cask storage using various single, dual, and multi-purpose cask designs
- The risk of terrorist attacks on these materials and the risk these materials might be used to construct a radiological dispersal device

Most of the meeting sessions were closed to the public because the material being discussed was controlled. Mr. Crowley mentioned that a substantive and appropriate public report would be released at 1 p.m. on Wednesday, April 6.

The Transportation of Radioactive Waste Study was developed by the Board on Radioactive Waste Management and the Transportation Research Board. This study was motivated by plans to develop a repository at Yucca Mountain later this decade. Sponsors of this study include DOE, the U.S. Department of Transportation (DOT), the Electric Power Research Institute (EPRI), NAS, the National Cooperative Highway Research Program (NCHRP), and NRC. This study was planned as a 24-month study and completed in early 2005. However, this study will be extended into the summer of 2006 to undertake a 2003 Congressionally-mandated (and DOT-funded) study on spent fuel routing. Two additional open meetings will be held to complete the routing study, with the first meeting to be held on May 26 and 27.

The Route Selection component of this study will address the following:

- The manner in which DOE and its contractors select potential highway and rail routes for the shipment of spent nuclear fuel from research nuclear reactors
- The manner in which DOE and its contractors select specific land routes for such shipments
- The manner in which DOE and its contractors conduct assessments, if any, of the risks associated with such shipments

Mr. Crowley concluded his presentation with the announcement of a new board – the Nuclear and Radiation Studies Board. This board was created through the merger of the Board on Radioactive Waste Management and Board on Radiation Effects Research on March 1, 2005. Responsibilities of this board will be radioactive waste management and environmental cleanup, radiation health effects, and nuclear and radiological terrorism and security.

Comments and Questions

One participant asked if the routing study would include foreign and domestic research reactors. Mr. Crowley answered that the study will include foreign and domestic research reactors. Another participant asked about the schedule for the routing study. Mr. Crowley anticipates that in the late June/early July timeframe there will be an open session. A third meeting will take place shortly after the open session. This meeting will be a closed meeting for the National Academies to work on the study. The full report should be available sometime in September or October.

Transportation Resource Exchange Center (T-REX)

Nancy Bennett of the Alliance for Transportation Research (ATR) at the University of New Mexico gave this presentation for Judith Espinosa, Director, ATR. Ms. Bennett began her presentation announcing that the newly redesigned T-REX Website will be posted this spring. It will have increased usability and more documents, resources, and search capabilities (allowing search by user type and by subject).

T-REX is currently conducting a telephone usability survey of its website users, including many TEC members. To date, over 50 interviews have been conducted. A summary report will be

available at the beginning of May and posted on the T-REX website. Some examples of the comments from the survey include:

- Availability of more historical documents
- More site-specific information
- More pictures, especially casks
- Improve marketing and outreach
- Receipt of regular updates via e-mail or postcard
- Make entire website searchable

Ms. Bennett concluded her presentation with some historical data on T-REX. The first month that users were tracked on T-REX was June 1999, and the total hits were 925. This fiscal year, T-REX expects over 300,000 hits. “News headlines” is the most accessed webpage, receiving about 20 percent of all website hits.

Comments and Questions

One participant noted that there are a lot of useful documents that are hard to track down pertaining to Yucca Mountain but would be beneficial to have as part of T-REX. T-REX would be an ideal place to serve as a central location for these documents.

Plenary II – Lessons Learned from Utilities

Overview and Moderator’s Remarks

In this session, three presenters from the utility industry presented their views and industry experiences, with a focus on lessons learned that can be applied to the Yucca Mountain transportation program. The session was moderated by Chandler van Orman, Senior Director, External Affairs, Nuclear Energy Institute.

Mr. Van Orman opened the session with the following points:

- Every aspect of radioactive materials transportation is covered by Federal regulation, with public safety and health of foremost concern.
- The United States produces 41 million tons of hazardous waste each year, and 8 million tons are transported each year. Nuclear power plants produce 2,000 tons of spent nuclear fuel each year. Since 1964, there have been more than 3,000 shipments of spent nuclear fuel, having traveled 1.7 million miles along U.S. highways and rail.
- With the record cited above, no container has ever leaked or cracked and there has been no radioactive release to the environment. No person has been injured. Spent nuclear fuel transport has one of the safest records of any hazardous material in transportation history.

San Onofre's Nuclear Fuel Shipping Experience

San Onofre's nuclear fuel shipping experience was presented by Robert Ashe-Everest, Supervisor of Nuclear Fuel Services, San Onofre Nuclear Generating Station, Southern California Edison. Mr. Ashe-Everest presented San Onofre's successful experience in moving fresh and spent nuclear fuel elements on, off, and within the San Onofre nuclear plant site.

- Typically, San Onofre receives 9 shipments of 100 fresh fuel assemblies (6 containers on each truck) every 20 months.
- In the mid-1970s, San Onofre shipped 270 spent fuel assemblies to GE Morris in Illinois. Hundreds of spent fuel assemblies have also been transported between the three units at San Onofre and to an Independent Spent Fuel Storage Installation (ISFSI) on the site.
- Mr. Ashe-Everest showed photos and described the process of unloading fuel assemblies from a spent fuel pool, loading them into the containers and transport casks, and putting them into dry storage at the site's ISFSI. In doing so, he showed photos of what a typical fuel canister looks like (each canister holds 24 fuel assemblies), how it is loaded into a cask, how the cask is decontaminated when it is pulled out of the pool water, the bolting of the lid, setting the cask onto the transporter, and loading the cask into the ISFSI from the transporter. He noted that the whole process from taking the fuel out of the storage pool to loading it into the ISFSI takes about 2 weeks.
- He noted that the utility worked closely with the Sacramento Utility District during planning and operations for transferring spent fuel to the ISFSI. He emphasized the importance of classroom and on-the-job training for all elements of the process, as well as personnel qualification testing. He said that the utility performed dry runs of the process, which included NRC observers.

Maine Yankee's Experience in Shipping the Reactor Pressure Vessel to Barnwell, SC

Ted Feigenbaum, President and CEO, Maine Yankee Atomic Power Company, presented Maine Yankee's experience in decommissioning the Maine Yankee nuclear plant, which was the first U.S. commercial nuclear power plant to be fully decommissioned and decontaminated. In particular, he described the experience of shipping the reactor's pressure vessel by barge to Barnwell, South Carolina.

- Maine Yankee was a 900-megawatt reactor that operated safely for 25 years (1972 to 1997). The utility decided to close it down due to a number of factors, such as changes in the regulatory scheme, deregulation, and equipment issues. Decommissioning activities started in 1999 and will be completed next month (the remaining activities being soil cleanup and final site surveys).
- As part of decommissioning, the utility shipped a large amount of radioactive waste, including:

- The reactor pressure vessel, shipped by barge to Barnwell in SC
 - The steam generator, shipped to Memphis, TN
 - Low-level waste – Class A, shipped to Envirocare in Utah and Class B-C to Barnwell (rail, barge)
 - Cold waste (non-radioactive), shipped to a landfill in NY
- Loading and shipping the reactor pressure vessel was one of the most challenging aspects of the decommissioning process. It took 3 years to “do it right” and involved a high level of community and media involvement, many levels of coordination, internal training and communications, and a lot of contingency planning.
 - Because of the size and shape, a special container had to be designed. The shielding was 4-inch carbon steel. The whole package was 900 tons, and required a special crane. Heavy haul (4 units) was used to get the pressure vessel from Maine Yankee to the barge slip. A barge then took it to an ocean-going vessel for the 1,200-mile journey down the East Coast.
 - One of the glitches was that, after waiting 1 year for water levels of the Savannah River to rise (after a long drought), the vessel ended up waiting for 3 days at the mouth of the river due to very high water levels after significant rains had flooded the river. This involved some hasty coordination with the Coast Guard, who was not aware of the shipment. The lesson learned was to plan for every contingency along the way (think of everything possible) and coordinate with every organization that could become involved.
 - Other lessons learned include start planning early; communicate and coordinate along the way with all key participants, as well as the community and media; document roles and responsibilities; bring in experienced people and people who have worked together before and that know the lay of the land; and establish go/no-go limits.

Perspectives from the U.S. Transport Council

David Blee, Executive Director, U.S. Transport Council, provided the perspective of the U.S. Transport Council on key ingredients to successful transportation planning and operations for spent nuclear fuel.

- The U.S. Transport Council is comprised of 24 member companies. The Council is working on actual case studies in nuclear transportation campaigns. Its principal focus is transport education, policy and business commerce related to nuclear materials transportation.
- Mr. Blee reviewed the track record of nuclear-related shipments, which includes 2,700 spent nuclear fuel shipments in the United States over 30 years and 1.6 million miles; and 3,400 shipments of transuranic waste to the Waste Isolation Pilot Plant in NM over millions of safe shipment miles – none of which has resulted in a release of radioactive material harmful to the public or environment. Internationally, the equivalent amount of spent fuel planned for Yucca Mountain (70,000 metric tons) has already been shipped safely for over 25 years. France and Britain average 650 shipments per year (three times the annual average for Yucca Mountain, which would be 175 shipments per year). In addition, there are 300 million “hazardous” shipments annually in the United States (1.2 million per day).

- Key transportation campaign ingredients include reliance on proven private sector experience and companies; stakeholder involvement; public education; constructive engagement with NRC, DOT and States; accountability; clear objectives and goals; funding; planning and preparedness; and management commitment.
- However, the OCRWM transportation program is constrained as related to these key ingredients. Examples of constraints include lack of systemic funding; constrained stakeholder involvement; breadth of private sector involvement; ambiguous senior management commitment; shifting and uncertain goals for the overall program; collateral accountability and transparency; and a closing contingency window.
- The U.S. Transport Council recommends that the program take advantage of the delays in projected start of operation of Yucca Mountain by accelerating transportation and waste acceptance readiness. This is proposed because transportation is as critical a component as the licensing of the site; it is a driver for stakeholder involvement and a catalyst for public education; it is an engine for tangible deployment of economic benefits to the transportation corridor; it seizes the contingency window of opportunity; it maximizes economies for government and utility ratepayers; and it has a high probability of success (it is not a first-of-a-kind endeavor).
- To do this would require senior management commitment, putting transportation and waste acceptance on a parallel path with licensing of the repository, and accelerating a systemic funding commitment.
- Other suggestions included ramping up intergovernmental, utility, and transport community involvement; maximizing private sector reliance; a special focus on the Yucca Mountain rail campaign, long-lead transport fleet, rolling stock, and fleet management infrastructure procurements; contingency planning for delay in rail availability; launching an incremental public education campaign; and establishing clear objectives, accountability, and project transparency.

Comments and Questions

With respect to San Onofre's bolted and welded shut canisters (for spent fuel in dry storage), a commenter questioned whether the lid would be unbolted and the spent fuel taken out and shipped bare in a cask to Yucca Mountain. Mr. Ashe-Everest replied that it is the utility's expectation that DOE will take the spent fuel in the canister it is already in (welds and bolts are already in place). The canisters used for dry storage have a high level of integrity, and the utility does not want to have to cut them open.

Another commenter (from a State's perspective) raised the issue of the need to balance the utilities' latitude in determining what fuel to ship when (being able to trade off spots in the queue) and the headaches that this latitude could cause to the transportation planners in terms of predictability of shipments and schedules that maximize efficiency. Gary Lanthrum, Director, ONT, noted that these are straightforward technical issues that should be dealt with in communications with the utilities. However, ongoing litigation has limited the good discussions that need to go on between DOE and the utilities in terms of planning what fuel gets shipped when. David Blee added that discussions are needed on what fuel is to be shipped within the first

5-year window, the critical handling facilities that need to be ready at the utility sites, and requirements for the retrievability of waste.

The first commenter above (speaking from Nevada's perspective) noted what he believed were three challenges involved in DOE's plans with respect to the Caliente rail corridor: the Nevada lawsuit filed on March 24; who should handle the EIS – DOE or the Surface Transportation Board; and land withdrawal. Given these three challenges, he asked the utility panel if they would advise DOE to continue with the Caliente rail spur or look at other options, including truck transport. Chandler Van Orman replied that the utility industry prefers mostly rail. He noted that most of the property along the Caliente corridor is Bureau of Land Management (BLM) land, which poses less of a problem in terms of getting the land. If this corridor does not work, there will be another corridor. The same commenter also identified concern about taking away land user rights (water beneath the land, grazing).

Plenary III – Evolution of TEC

The final plenary session was a brief presentation by Judith Holm, ONT, on the history of TEC. In 1992, DOE formed TEC to develop transportation planning activities for WIPP, OCRWM, and other DOE programs. The first meeting hosted about 40 participants from State, local and Tribal governments; the nuclear and transportation industries, and other interested parties. The Charter was created in 1992.

In addition to DOE stakeholders, other Federal agencies occasionally participate in TEC meetings. The past 12 months has seen an increase in industry participation.

Corinne Macaluso, ONT, is the lead for organizing the meetings. TEC meetings are held twice a year (spring and fall) around the United States near airline hub locations to facilitate travel by participants. TEC holds two types of meetings: one is a general meeting with Topic Group sessions and the other focuses on Topic Group meetings, with the Topic Groups meeting sequentially to allow for full participation by those interested in more than one issue.

TEC has many success stories. Perhaps the most well known is the emergency preparedness training developed over a 3-to-4-year period at TEC and sponsored by DOE's TEPP. States continue to adopt the training, integrating elements into their own training programs.

TEC works on transportation issues through Topic Groups that report back to the main TEC body. The groups focus on one issue until a consensus is reached and then they sunset and new Topic Groups are formed on other issues. Current Topic Groups include 180 (c), Security, Routing, Rail, and Tribal Issues.

TEC serves as a source for healthy dialog and debate and provides an even playing field for the parties involved in DOE transportation planning. It is moving toward being a more product-oriented organization and less informational in its scope. The organization is transitioning from DOE Environmental Management (EM) to OCRWM. EM is still participating, as is the DOE Office of Naval Reactors. Members will be notified when the TEC website has been moved from EM to OCRWM.

The next meeting will be held in the September 2005 timeframe, probably in New England, the mid-south, or Pueblo, Colorado (if a tour of the Transportation Technology Center can be arranged).

Demonstration of Decision Analysis Tool (Separate Session on April 5)

A separate session was held on the morning of April 5 to demonstrate use of a Decision Analysis tool DOE is making available to help States and Tribes evaluate routes according to selected criteria. This session was led by Dr. Ruth Weiner, Sandia National Laboratories, and Jay Jones, ONT. This method is available through web-based modeling tools, such as TRAGIS, and use of the risk code RADTRAN.

TRAGIS is a web-based tool developed by Oak Ridge for identifying suites of legally compliant routes (highway and rail) and analyzing the differences between them. The tool allows the user to identify routes that are compliant with DOT's highway route-controlled quantity requirements and State-preferred route designations already filed with DOT. It includes over 235,000 miles of roads and 150,000 miles of rail. The model will allow the user to analyze alternative routing combinations, showing various attributes such as driving distance, estimated driving time, number of States and Tribal lands that the route passes through, number of urbanized areas, population along the route, etc.

RADTRAN is a risk code developed by Sandia and is used in evaluating potential radiological risks associated with transportation of radioactive materials under normal and accident conditions. The first versions of the program, RADTRAN I and II, were developed for NUREG-0170 (USNRC, 1977), the first environmental impact statement on the transportation of radioactive materials. RADTRAN and its associated software have undergone a number of improvements and advances consistent with improvement in computer technology.

Dr. Weiner walked the audience through the steps of a decision analysis method that will help States and Tribes analyze potential routes against certain criteria. This method will not only help in developing and testing routing criteria (to support current efforts of the State Regional Groups in developing their recommended routing criteria), but will also help in the next phase of evaluating potential routes against selected criteria (to support State Regional Group identification of their preferred suites of routes).

With Dr. Weiner providing a demonstration from a computer projected onto a screen, she walked through the following steps that she suggests the State Regional Groups use in testing the criteria and analyzing routes:

- Define the objectives and scope the problem (shipment origin and destination, mode, timeframe, etc.)
- Identify potential routes
- Identify the criteria to be applied (e.g., shortest distance, avoid certain population densities, avoid certain cities or tribal lands, etc.)
- Using TRAGIS, map the routes from origin to destination

- Using TRAGIS and, when appropriate, RADTRAN, apply each criterion to the routes that are mapped through the region. This will help identify those criteria that differentiate between potential routes, as well as those routes that do not meet certain criteria.

Dr. Weiner suggested that potential routing criteria should be able to be measured or quantified in some way, overlap as little as possible, distinguish between alternate routes, and differentiate clearly between “better” and “worse” parameters.

In sum, the Decision Analysis method is a semi-quantitative method for evaluating parameters that make a route more or less desirable. This method identifies alternatives by their measurable characteristics and, independently, by the importance of each characteristic to the selection. It also allows rapid sensitivity analysis and provides documentation for selection. Dr. Weiner said that she and Paul Johnson of Oak Ridge are available to demonstrate use of these tools to anyone interested.

Part III – Topic Group Breakout Summaries

Tribal Topic Group

This meeting concentrated on 180(c) funding issues and Tribal outreach for Yucca Mountain transportation planning. The meeting was led by Jay Jones ONT. Following brief opening remarks and introductions, Mr. Jones opened the meeting with an overview of the OCRWM Program. Jay also announced that the next DOE State and Tribal Working Group (STGWG) meeting would be held in Lewiston, Idaho in mid-May. In addition, the letter introducing the OCRWM Program to Tribes along potential Yucca Mountain routes was mailed out March 8, 2005, to 39 Tribes. Follow-up calls and meetings will be conducted.

180(c) Funding Issues

Next, Corinne Macaluso (ONT) presented an update on the 180(c) Topic Group. She said the group gave Ted Garrish (DOE/OCRWM) a set of recommendations for approval, including direct grants to States and Tribes, flexibility in allowable activities, and allowing the States and Tribes to decide who should receive training. A funding allocation formula is being advocated similar to the DOT Hazardous Materials Emergency Preparedness (HMEP) Grant program that has a 3 percent set-aside for Tribes. Three of the four State Regional Groups who are members of the 180(c) Topic Group agreed to such a formula – \$200K for planning grants; \$100K for training; with the remainder of funds allocated based on set parameters for each State (30 percent population, 30 percent mileage, 30 percent on number of shipments, and 10 percent on number of shipping sites within the jurisdiction).

A second formula was proposed that would base 75 percent of funding on the number of shipments. Ms. Macaluso and Mr. Jones emphasized those discussions focused on State funding allocations. Direct funding to Tribes is intended, and Tribes will be contacted separately from States for 180(c) funding decisions. Some of the concerns expressed by Tribal members of the

Topic Group included:

- competition for funding,
- dissatisfaction with Homeland Security funding allocation method,
- overlapping jurisdictions,
- DOE's half-mile limit,
- need for ongoing training due to turnover of personnel,
- include all public safety officials in training,
- recovery of money spent responding to accidents, and
- the fact that cultural resources cannot be replaced and are used to sustain communities.

The following recommendations were made relative to funding:

- provide direct funding to Tribes,
- benefit from lessons learned from Department of Homeland Security,
- create a simple application process,
- appoint Tribal representatives to application review board,
- conduct a telephone survey of Tribes,
- develop an Assessment Plan for Tribal priorities for funding, and
- provide flexibility in "allowable activities" as long as they are within Section 180(c) guidelines.

Ms. Macaluso then asked the Tribal Issues Topic Group to come up with a set of questions for DOE to consider on 180(c) (application process, etc.). Ed Gonzales (ELG) said that those present in the Topic Group meeting make up about 1 to 2 percent of the 40 Tribes along the Yucca Mountain route. Ms. Macaluso replied that a set of questions developed by the Group could be used as a starting point with other Tribes for continued discussion on the funding issue. Issues and recommendations specific to Tribal outreach included:

- initiate one-on-one contact with Tribes (some traditional people will require Tribal intermediary to meet with DOE representatives),
- include cultural representatives and traditional people,
- consider cultural sites and hunting and gathering areas,
- need to educate Tribal members,
- need for risk communication training,
- identify Tribal sensitivities,
- develop an outreach strategy,
- provide training to people outside of the emergency response field, as they may be the first to respond,
- meet with all 39 Tribes,
- make a presentation to the All Indian Pueblo Council on 180(c) funding, as requested by the Council,
- involve Tribes up front before decisions are made,
- encourage Tribal participation in Tribal Topic Group,
- include environmental sustainability in the OCRWM Program mission,
- hold follow-up meetings on Indian reservations, and
- identify a Tribal member as a point-of-contact to ensure effective communication.

Update on DOE/Nevada Tribal Interactions

Robert Lupton and Vickie Best gave a short update on DOE Nevada (DOE/NV) Tribal interactions. Mr. Lupton said DOE/NV interacts with 17 Tribes and organizations, and over the past 15 years has had a Native American Interaction Program. He reminded those at the meeting that DOE has selected the Caliente Rail Corridor as the one to be developed for shipments to Yucca Mountain. Ms. Best (contractor to DOE/NV) said that the American Indian Writing Subgroup recently toured the rail corridor and was writing a document on views and perspectives on the rail line for use in the *Rail Alignment Environmental Impact Statement*. Greg Fasano (contractor to DOE/NV) added that a Programmatic Agreement on cultural resource protection had been penned and that an additional Programmatic Agreement is being put together for rail. DOE/NV will continue to meet with local Tribes approximately every 6 months (not intended as consultation). As a side note, the Group was told that the Western Shoshone Nation has filed legal action based on the Ruby Valley Treaty.

Kristen Ellis (DOE Office of Congressional and Intergovernmental Affairs – CI) announced that the new Secretary of Energy is planning for the next Tribal Summit and asked the Tribal Issues Topic Group for input. A letter was sent to Tribal leaders in September 2004, and DOE is moving forward on another letter to Tribal leaders on the next Summit.

Mr. Jones and his contractor staff will work toward holding Tribal Issues Topic Group conference calls monthly until the next TEC meeting in the Fall. Below is a summary of the action items agreed to for the Tribal Topic Group.

Action Items

<u>Responsible Party</u>	<u>Action to be Taken</u>
All	Develop a set of questions/issues regarding Nuclear Waste Policy Act (NWPA) Section 180(c)
DOE/OCRWM Staff	Explore the possibility of conducting a survey of Tribes concerning 180(c) needs.
DOE/OCRWM Staff	Look into assisting Tribes with completion of Assessment Plans
DOE/OCRWM Staff	Explore regional/national meetings of the 39 Tribes
All	Solicit greater participation of Tribes in TEC Tribal Issues Topic Group
All	Provide input to Kristen Ellis (DOE/CI) for next Secretarial Tribal Summit

Security Topic Group

This meeting focused on four major areas of work that the Security Topic Group has identified as their priority for FY 2005 and 2006: (1) roles and responsibilities, (2) information security, (3) operations security, and (4) public information. This meeting was led by Nancy Slater-Thompson (DOE/OCRWM Office of National Transportation).

Before discussing the proposed activities to address the four areas of work, Nancy provided an update of activities involving the Classification Guide, security clearances, security training, and the current Security Topic Group membership.

Update of Relevant Activities

Classification Guide – The Interagency Committee on the Classification Guide for Secure Transportation of Nuclear Waste held its initial three-day working session from March 22-24, 2005, and collaboration began on new Federal Government guidance for ONT with participation by DOE, NRC, DOT, and DHS. The goal for completion of the *ONT Classification Guide* is February 2006.

Security Clearances – The Administration is pursuing a Government-wide common secure identification badge system for Federal access and control. ONT is reviewing criteria for reciprocity of security clearances and clearance processing.

Security Training – ONT is exploring opportunities to leverage the capabilities of experienced DOE Offices, the Office of Secure Transportation, and the Office of Security National Training Center to train shipment personnel.

Current Security Topic Group Membership – Ms. Slater-Thompson presented the current Topic Group membership, which includes representatives from the four State Regional Groups and corridor Tribes (including personnel in policy, law enforcement/homeland security, and emergency response); subject matter experts; and carrier representatives.

Four Major Work Areas for the Security Topic Group

The major purpose of this April meeting of the Security Topic Group was to form four subgroups to address each of the major work areas. Each subgroup is responsible for planning and accomplishing the activities defined for their areas. After a review of each of the four areas, the Topic Group broke out into the four groups to begin developing the work scope, identify and prioritize activities, make assignments, develop schedules, and identify products. A brief review of the issues to be addressed for each of the four work areas is contained below.

Roles and Responsibilities – What are the transportation roles and responsibilities of the Federal/State/Tribal/Local agencies, and how can these be harmonized? Activities in this area will not be initiated until the *ONT Concept of Operations* is available.

Information Security – How do we protect sensitive and classified information and assure appropriate State/Tribal/Local representatives have access to information needed for normal and emergency operations?

Operations Security – How can State/Tribal/Local governments contribute to and enhance security in an open, nationwide transportation system?

Public Information – How can we communicate with the public about transportation security without releasing sensitive or classified information? This issue will be addressed upon completion of the *ONT Classification Guide*.

The Topic Group will prepare a consolidated set of Subgroup Work Plans on the areas that will be worked on now and will hold monthly teleconferences to report on progress being made. The Group will meet again at the Fall TEC meeting.

180(c) Topic Group

Corinne Macaluso (ONT) was the DOE presenter for this meeting. She began the meeting with an update on OCRWM management’s review of the recommendations that have been agreed upon to date by the Topic Group.

- Ted Garrish (DOE/OCRWM) has expressed his agreement with the six recommendations on the following topics: funding distribution method, allowable activities, definitions, pass-through requirements, contingency plans, and 180(c) regulation or policy.
- Ms. Macaluso informed the Topic Group members that the Tribal Topic Group had addressed 180(c) issues in its meeting the previous day. The significant issues from that discussion were: the funding allocation method, the definition of “jurisdiction”, and technical assistance as it will apply to Tribes. Topic Group members noted the need to address issues of cultural sensitivity and environmental sustainability in the group’s deliberations.

The 180(c) Topic Group then took up consideration of unresolved comments and issues that had been raised or submitted previously by various topic group members. The issues that received the most discussion are discussed below.

Discussion of “Unresolved Issues”

Issue: *Does DOE need to make operational decisions on the overall transportation system (rail/truck routes, shipment schedule, dedicated trains, modal mix, etc.) before decisions are made on a specific 180(c) funding allocation method?*

Discussion: Ms. Macaluso stated that the funding allocation decision is independent of decisions on route and mode. A Western Interstate Energy Board (WIEB) representative observed that States need a context in which to plan, and a system description to determine real needs is necessary as a fundamental basis for other plans.

This led to a question from another topic group member as to how the Western States came up with their proposed allocation formula. A WIEB representative responded that with more information from DOE, the current WIEB allocation formula may turn out not to be the appropriate formula. Another WIEB representative added that a formula may not meet the needs of all States, and this requires an assessment of needs first; if the formula doesn't provide what is needed to get the job done it creates unfunded mandates.

A Council of State Governments-Midwestern Office (CSG-MW) representative made the point that a formula will give a target amount to each State, but each State will have to apply for and justify that amount of money. Another Topic Group member added that the training of responders along routes is the primary concern, and a formula-based approach may address these needs better than a needs-based approach (particularly for a State such as California).

A WIEB representative stated that the WIEB formula is a placeholder until the necessary information is available to decide on the most appropriate approach. The WGA will revisit its resolution at its next meeting, and WIEB will decide at its meeting in May what to recommend to the Governors.

Issue: *Topic Group members had recommended that the definition for “safe routine transportation” be revised to add the words “...and policies and agreements” to the listing in the first sentence. The first sentence currently says that shipments must be compliant with “...applicable Federal, state, tribal, and local laws, and regulations.”*

Discussion: The Topic Group suggested that the first sentence of the definition be changed to read: “... applicable Federal, State, Tribal and local laws and regulations, and *Federal policies and agreements.*” (Change noted in italics.) This raised the question as to whether an agreement between DOE and a single region would be considered a Federal agreement. There was a general consensus that a Federal agreement can include an agreement between the Federal Government and a State or region, or between two Federal agencies, etc.

A WIEB representative suggested the *DOE Practices Manual* as an example of a nonregulatory “policy or agreement” that DOE may want in the definition. Ms. Macaluso responded that DOE will follow the *Practices Manual* whether or not the proposed terminology is included. She said the proposed terminology could be interpreted more broadly than the group's discussion indicated.

Issue: *Mutual aid situations need to be further addressed and clarified.*

Discussion: The Topic Group agreed that States will negotiate directly with DOE (not with each other) on specific situations, as consistent with current practice.

Issue: *Can the 4-year planning and application process be reduced to 3 years?*

Discussion: One member noted that if training is provided too far ahead of time its value is lost. Another member suggested that some States may need 4 years and should be given the option of beginning 4 years in advance if needed. The Topic Group expressed agreement with this suggestion.

The group then addressed questions of timing and eligibility, comparing the steps involved with the WGA-recommended combo approach and the HMEP-based combo approach. Topic group members agreed that the steps under each approach are essentially identical. Each approach has a

needs assessment step that would help inform appropriations requests after DOE's initial request to Congress using a placeholder dollar amount.

A question was raised as to whether the initial \$200K planning grant would be sent out without the need for State applications. Judith Holm (ONT) noted that a State application will be required for the release of any funding.

It was suggested that a State may not want or need the full amount initially or may take more than 12 months to plan. The Topic Group recommended that jurisdictions be able to carry over the \$200K to accommodate these situations.

Issue: *The discussion of matching requirements in the State Fee issue paper requires clarification.*

Discussion: DOE had put this concept on the table for discussion through the State Fee issue paper. It was noted that the HMEP grant program matching requirements were written into the HMEP legislation, unlike with 180(c). DOE's concern was that it may be double-charged by issuing 180(c) grants and having to pay fees to the State that would be used for similar activities.

Some Topic Group members noted that State fees are not necessarily used for the same purposes as 180(c) funds. Therefore, DOE should not assume that it is being double-charged. A point was made that the Nuclear Waste Policy Act (NWPA) requirement that generators are responsible for disposal costs would argue against a matching requirement. It was also noted that funds from a Federal grant program cannot be used to meet matching requirements under another Federal program. It was further noted that many Tribes don't have fees in place, but they are not precluded from doing so in the future, and it is important to retain that option.

The consensus of the Topic Group appeared to be to drop this from consideration. DOE will continue to consider its options on this topic.

Issue: *Does the definition of "public safety official" include officials of private hospitals?*

Discussion: The Tribal Issues Topic Group members mentioned that this is an issue for them as well since several Tribes contract for their medical services. Ms. Macaluso said that DOE would discuss this issue as the concurrence package goes through DOE review in the fall of 2005.

Issue: *Western States do not necessarily agree that items that DOE has classified as "non-180(c) operational activities" are all ineligible under Section 180(c).*

Discussion: The Topic Group agreed on drafting a formal request to DOE to address the "non-180(c)" issues in a separate forum. This action would not obviate the need for *Appendix J* of the draft package going through concurrence.

Issue: *The Contingency Plans Issue Paper (Appendix F of the draft Policy and Procedures document) requires further clarification.*

Discussion: Topic Group members revised their recommendation for the definition of "contingency" as follows: "Contingency, for the purposes of the 180(c) program, is an occurrence such as an emergency route closure that affects planned or ongoing shipments." The members also revised wording that addresses the event of a contingency as follows: "In the event of an unforeseen emergency, DOE will make funds available, if necessary, and work with State,

local and tribal governments as necessary to reach a mutually acceptable solution.”

Issue: The definition of “training-related” (as relates to equipment and allowable activities) requires clarification.

Discussion: Topic Group members decided to not recommend a definition of “training-related.”

Because of time limitations, the Topic Group was not able to address all of the items on the agenda. Ms. Macaluso will schedule subsequent conference calls for the Topic Group to continue discussions on the draft *Executive Summary* and *Policy and Procedures* documents, the grant application process, and a pilot program for implementation of Section 180(c).

Rail Topic Group

Jay Jones (ONT) was the DOE presenter for this meeting. The meeting focused on the Topic Group’s development of a paper on routing criteria, discussion of the routing criteria and route selection process, and possible new tasks for the Rail Topic Group. Key comments and discussions are summarized below.

Comments/Discussion on the Rail Topic Group Paper

Several members suggested that development of a Rail Topic Group paper on routing criteria be deferred. Others believed that the Topic Group’s paper was not needed. Reasons included the following:

- The State Regional Groups already have the task of writing a paper on routing criteria in their scopes of work. If the Rail Topic Group is to have its own paper on routing criteria, it should wait until after the State Regional Groups complete their papers and use these as input into the Topic Group paper.
- The National Academies is currently undertaking a study that will assess route selection for spent nuclear fuel. This study, when completed, could be used as part of the foundation for the Topic Group paper.
- There are several other rail-related issues that the Topic Group could pursue instead of writing a paper.
- The Topic Group has spent too much time writing papers that are not useful.

Mr. Jones emphasized that there needs to be some sort of process developed for route selection criteria. He said it was important for the Rail Topic Group to capture input from the different groups, and the proposed topic group paper is a vehicle in which to do this. However, he agreed to defer development of this paper until the CSG-Midwest and -Northeast have provided their recommendations on the criteria (see status of State Regional Group activities below).

Comments/Discussion on Routing Criteria and Route Selection

Status of State Regional Group Activities Related to Routing Criteria and Route Selection – An update was given from several State Regional Group members on their process for identifying routes. The Southern States Energy Board (SSEB) and WGA will wait for DOE to disclose its routing criteria and will then work with DOE to select routes. The CSG-Midwest and -Northeast are going ahead and developing their own routing criteria to recommend to DOE. The CSG-Midwest anticipates finalizing its routing criteria by July 2005.

Integration of State Regional Group Input – One member questioned how DOE and this Topic Group were going to handle the different processes the State Regional Groups were taking to approach routing criteria. A suggestion was made for DOE to do an internal working paper detailing how DOE will integrate the input from the State Regional Groups on routing criteria.

Information to Help State Regional Groups – One member suggested that the Topic Group gather and present information to the State Regional Groups that would be common information they could use for their routing criteria processes. The State Regional Groups would go forward with this common information and continue to determine their routing selection.

Federal Railroad Administration (FRA) and AAR Perspectives on Criteria -- One member commented that the State Regional Groups are hearing conflicting information from FRA and railroads on what kinds of criteria will affect routing. FRA and AAR representatives responded by saying that whether dedicated trains are used over a suite of routes will not affect routing criteria, but issues such as tracking and security will affect routing criteria and route selection. Another example of criteria that might affect route selection would be the need to ship multiple casks at one time.

How Many Routes in a “Suite of Routes” – One member suggested that it would be helpful to know what constitutes a “suite of routes.” Specifically, how many routes are in a suite of routes? The CSG-Northeast would prefer as few as possible. Another member said the CSG-Midwest is currently looking at dozens of routes and then will narrow them down when DOE comes up with route selection criteria. There is no need to limit the number of routes at this time. Another member commented that regardless of the number of routes, it is best not to have too many interchanges. Another member added that railroads are going to reserve the right to re-route if they have to. Ruth Weiner also noted that the number of interchanges is just one criterion and one may not be able to meet all the criteria.

180(c) Planning – Judith Holm (ONT) reminded the Topic Group that one of the reasons DOE is pursuing routing criteria and route selection activities at this time is to be able to plan 180(c) activities for the States and Tribes along the routes. The Topic Group should keep this in mind as it plans its activities.

Timing of Activities in Relation to Repository Delays – One member commented that the repository could be potentially delayed. As a result, the timeline for providing information to the states will be backed up accordingly. It was noted that planning grants are anticipated to be awarded 4 years before the repository opens and routes are selected.

Other Comments

Security – Several members had questions pertaining to security. One member asked if DOE had guidelines for sabotage incidents. Mr. Jones responded that this Topic Group would have to work with the Security Topic Group on security related issues. Ms. Holm commented that DOE does not have a common path but alternatives have been discussed. No DOE policy has been issued.

FRA Dedicated Train Study – Kevin Blackwell (DOT/FRA) gave an update on the FRA dedicated train study. As of the week of April 4, the Acting Administrator should be signing off on the study. The following week the study should go to the Office of the Secretary of Transportation (OST). OMB has already reviewed the study, so the study should be released shortly after OST signs it. One member asked if the Topic Group is going to factor in what the FRA has in its study. Mr. Jones responded by saying that the Topic Group should review the FRA study independently.

FRA Safety Compliance Oversight Plan (SCOP) – Several members inquired as to whether comments could be provided on the current edition of the FRA's SCOP and not just the updated version that will be released. A member responded and said that the FRA would welcome comments on the current edition as well. Another FRA member commented that the FRA SCOP is essentially an internal FRA policy document that is very limited in scope.

RADTRAN Demonstration -- Ruth Weiner from Sandia National Laboratories offered to attend the State Regional Group meetings and conduct a demonstration of RADTRAN. The CSG-Midwest will be meeting in June and are currently reviewing DOT highway selection criteria. They are looking at DOT for their primary criteria. The States have been identifying their secondary criteria on their conference calls. An example of secondary criteria would be urban area transited. The CSG-Midwest would be willing to share its criteria once they get concurrence from the States. Several other State Regional Group members acknowledged they would like to take advantage of a RADTRAN workshop. One member suggested a TRAGIS run that shows routes for the West and South. Dr. Weiner suggested that the West come up with some criteria, and either she or Paul Johnson (Oak Ridge National Laboratory) could run the criteria.

Tentative List of Other Tasks for the Rail Topic Group

With the aid of a flip chart, Mr. Jones and Alex Thrower (DOE/EM) led the group in a discussion of possible topics and tasks that the topic group may want to pursue. After much back and forth discussion and various suggestions (summarized in the comment sections above), the end result was the following list of possible new task areas for the Rail Topic Group:

1. Inspections (States and Tribes)
2. Radiation Risk
 - a. Remote monitoring
 - b. Sensing technology
3. Escorts
 - a. Road Safety
 - b. Equipment
4. FRA SCOP - comments to be provided to FRA
5. Tracking

- a. DOE - independent tracking
 - b. Security Component
- 6. Dedicated Trains
- 7. Regulatory Requirements
- 8. Summary of previous reports (WIPP PIG)
- 9. Roles, responsibilities and interfaces between DOE, rail, state/local security and law enforcement agents (work with the Security Topic Group)
- 10. Rail planning process, protocols and guidance

Action Items

Mr. Jones and Mr. Thrower will compile the list of suggested tasks for the Topic Group to pursue and send members an e-mail asking them to choose which ones they most want to pursue.

Summary of Evaluations

Only 24 evaluation forms were received (less than 20 percent of the participants). Of those evaluations, the overall rating for the April 2005 TEC meeting was “good.” The agenda sessions were deemed “Somewhat Useful” or “Very Useful” by respondents. Several commented that they liked hearing the utilities’ perspectives on transportation. Other topics called out as positive were tribal issues, security, and route selection. Topics or emerging issues suggested for more focus at the next TEC meeting included: continuing the security dialogue; more interaction with the public utility and railroad industries; more information on private fuel storage and its impact on transportation; tribal issues; completing unresolved 180(c) issues; technology applications to training and emergency response integration; and more information on the repository.

For those respondents who attended certain Topic Group breakout sessions, ratings on their usefulness were mixed between “Very Useful” and “Somewhat Useful” (with a small percentage of “Not Useful”). Some comments were made about poor acoustics in the breakout rooms (lack of microphones, having subgroups meeting in the same room). While some commented positively about the conduct and content of the Topic Group sessions, others identified aspects that needed improvement. For example, some thought the flow of Topic Group discussions needed more control, and some thought that breaking into further subgroups was not only confusing but also forced people to choose one subtopic over another.

Comments were overall positive on the meeting location, hotel, and logistics. Several suggested, however, that the hotel should have provided internet access with the room charge. Some commented that meetings should start on Tuesday, not Monday (requiring Sunday travel). Most comments were positive on the pre-meeting announcements and availability of materials, but some commented that they would have liked earlier notifications of the meeting and earlier copies of meeting and topic group materials. Respondents were asked if they agreed with the following approach for holding the two TEC meetings per year: Hold one annual meeting for the Topic Group members to meet consecutively, followed by program updates (as appropriate) and wrap up with Topic Group updates (1 1/2 day event). The second annual meeting be held for all TEC participants (including those not on topic groups and invitees) with plenary sessions, program updates and updates from each Topic Group (2 day event). Most respondents agreed with this approach. One respondent commented, however, that the consecutive running of Topic Groups left a lot of downtime for certain members and made for a very long day for others.