U.S DEPARTMENT OF ENERGY
TRANSPORTATION EXTERNAL COORDINATION WORKING GROUP MEETING

February 6-7, 2008
San Antonio, Texas

Welcome and Meeting Overview

The U.S. Department of Energy (DOE), Transportation External Coordination (TEC) Working Group held its 29th meeting on February 6-7, 2008, in San Antonio, Texas. One hundred thirty-one participants from government, industry, professional organizations, and other interested parties met to address a variety of issues related to radioactive materials transportation.

The TEC process involves these key stakeholders in developing solutions to DOE transportation issues. These meetings provide continuing and improved coordination between DOE, other levels of government, and outside organizations with DOE transportation-related responsibilities. These notes do not represent final DOE positions or policy; they only summarize discussions which may help inform DOE program activities.

Presentations from this meeting, as well as the agenda and a listing of participants can be found on the TEC Website at http://www.tecworkinggroup.org.

Frank Moussa, Office of Civilian Radioactive Waste Management (DOE/OCRWM) welcomed the stakeholders to TEC 2008 and thanked the staff for their hard work in the planning and implementation of TEC. Mr. Moussa reviewed the two-day agenda and outlined some room changes for the day's breakout sessions.

Welcoming Remarks – Roger Mulder, Director, State of Texas Pantex Program

Mr. Mulder welcomed attendees to San Antonio and encouraged everyone to enjoy the city's restaurants and historic sites. He stated the Pantex program expects 180 shipments of waste to be moved through the state in 2008. He also indicated the program will engage in important site clean up activities and complete several major deliverables in 2008. He indicated the State of Texas currently has two license applications pending related to low-level radioactive waste and Interstate Compact waste. He expects the first license application hearing to take place in March of 2008.

TEC Briefing and Overview

Mr. Moussa stated the mission of TEC is to improve coordination among DOE and external groups interested in the Department's transportation activities. He stated that in accordance with the TEC charter, the organization provides continuing and improved coordination among appropriate DOE elements, other levels of government, and outside organizations having a responsibility for DOE transportation activities.

Mr. Moussa shared with attendees TEC's history, including the first meeting held in April 1992. During that meeting, many interest areas were discussed, such as planning, enforcement, training, public information, and communications. TEC was established with OCRWM and the Office of Environmental Management (EM) as co-chairs and is intended to provide a comprehensive approach for all DOE programs that transport radioactive materials.

Mr. Moussa stated TEC has been busy since that first meeting in April. He observed the group has had major input into Transportation Emergency Preparedness Program (TEPP) training modules, the OCRWM decision to use dedicated trains, EM's Transportation Practices Manual, Section 180(c) Draft Policy, and key outreach messages and information products. He also noted that DOE is continually re-evaluating the structure and content of TEC, in an effort to improve its performance, and has received feedback from a number of individuals and organizations. He stated every TEC member should share their ideas and actively participate in the discussions. He emphasized TEC is an evolving process, and member input and participation should be on-going.

DOE Program Updates

Office of Civilian Radioactive Waste Management, Office of Logistics Management (OLM) – Gary Lanthrum, Director

Mr. Lanthrum addressed recent staffing changes at OLM, including the retirement of Judith Holm and the hiring of Mr. Moussa as her replacement. In addition, Corinne Macaluso transferred to the licensing office within OCRWM, and Jay Jones accepted a position working on international issues for OCRWM. Julie Offner has been hired as Mr. Jones' replacement.

- Key Program Milestones – Mr. Lanthrum discussed the key milestones necessary for Yucca Mountain to begin accepting waste. He noted at the last TEC meeting, Director Sproat indicated the License Application would be submitted to NRC by the end of June 2008. Mr. Lanthrum reported that recent budget reductions may impact that deadline. In addition, he observed the Supplemental Environmental Impact Statement (SEIS) for the repository and the rail alignment Environmental Impact Statement (EIS) were released in draft form in October of 2007, followed by a 90-day comment period. The Licensing Support Network (LSN) was certified on October 19, 2007.

- Budget – Mr. Lanthrum discussed Congress's recent $100 million reduction to the program's budget. He used a graph to illustrate the original schedule of transportation milestones compared to those achieved under continued funding reductions. The central point illustrated by the graph was that under flat funding through 2017, the transportation program probably could not support the opening of the repository at that time.

  Mr. Lanthrum also asserted that reducing the initial level of funding actually results in higher total program costs. Delaying capital acquisitions increases costs due to generalized inflation, as well as product-specific inflation associated with an increased demand for steel and other materials needed for purchasing casks and building the rail line. He indicated OCRWM management is currently conducting a comprehensive evaluation of the impacts of budget cuts on the program's technical baseline.

- Development of the National Transportation Plan (NTP) – Mr. Lanthrum has directed his staff to reframe the document in terms of total investment required. He wants the latest version of the NTP to tie the funding profile to the overall cost required and clearly describe the impacts of delayed funding.

- Nevada Rail Status – Over 1,100 comment documents have been received on both the repository SEIS and the rail alignment EIS. The final EISs will be issued in June of 2008. No sooner than 30 days after the final EIS is issued, DOE will issue a Record of Decision regarding the rail alignment.

- Section 180(c) – The comment period on the *Federal Register* Notice for the Revised Proposed Policy closed on January 23. Over 50 comments were received and DOE is assessing the comments. OLM intends to publish the supplement to the *Federal Register* Notice dealing with tribal issues in 2008 and will be soliciting comments on that as well.

- Operations Planning – OLM is working to determine the regulatory framework and requirements in order to define how capital investments can proceed.

- Perceptions of Transportation Risk – H.R.1 and the Department of Transportation's Notice of Proposed Rulemaking (NPRM) broadly implement the recommendations from the 9/11 Commission relating to transportation. The NPRM frames highway-route controlled quantities of radioactive material as Class 7 hazardous material. Mr. Lanthrum observed the National Academy of Science (NAS) report confirmed the federal government's exceptional record of safe transport of such materials. He commented that of the 125 billion tons miles of hazmat shipments each year in the U.S., Class 7 shipments comprise less than 0.5 percent. Furthermore, only 5 percent of Class 7 shipments will be accounted for by OCRWM shipments, even during peak years of Yucca Mountain shipments.

Questions/Comments and Responses

Comment: We are disappointed in your comments on the NAS study and comparative risk. You act like there's no real risk. You gave a one-sided view on NAS study and the real technical and social risks the study identified. Also, it appears DOE is backing off from the Oldest-Fuel-First (OFF) requirement with the new TAD canister system. If DOE drops the OFF position, it's ignoring real risks associated with these shipments. In addition, you've biased any future discussions of risk by stating the only risk is in people's perception, and no technical risks exist.

Response: The fact that we are engaging with you to discuss how these shipments will move shows our commitment to working through both the social and technical risks associated with these shipments.

Comment: The selection of the rail alignment is not necessarily timely. Spend your time instead integrating Nevada Rail with the national rail system.

Response: We solicited comments and additional information from the rail industry last year on construction of the rail line. Contracting design work will be largely determined by the funding stream. We need to pursue on-going activities with the funding we have, and this includes making those decisions that we can.

Comment: The public's perception of these shipments is not going to change. You have a long road to hoe to get sufficient public acceptance. You can discuss comparative risks but it's like comparing the health risks of gasoline and chocolate chip cookies.

Response: We realize we won't change the minds of the 10 percent or so of the public which believes this program should stop now. We are trying to address the 80 percent of the population that either has no strong opinion about the program.

Comment: Please take our comments seriously on the EISs because the 90-day comment period was difficult since it covered three holidays and huge volumes of information we had to find and sift through.

Response: We take all comments seriously, and we appreciate your taking the time to craft your comments.

Office of Environmental Management, Office of Transportation – Bill Spurgeon

Bill Spurgeon provided the EM program update on behalf of Acting Director, Ella McNeil, who could not be present. The presentation discussed the following:

- Re-organization – EM recently combined its Packaging Certification program and the Office of Transportation to form the Office of Packaging and Transportation.

- Site Cleanup – Cleanup of DOE sites is ongoing. In 1990, DOE had 114 sites in 41 states. Now, only 24 sites remain with timelines for cleanup divided into short, medium, and long term.

- Shipping Campaigns – With the closing of sites, the number of shipments is decreasing. EM is currently shipping spent fuel from Hanford to Idaho National Lab (INL) and low-level waste (LLW) and mixed low-level waste (MLLW) to Energy Solutions and the Nevada Test Site (NTS). During the first quarter of FY 2008, EM has completed about 2,000 shipments. Planning is also underway for the following shipping activities:
  - Depleted Uranium Oxide from the Savannah River Site (SRS);
  - Spent nuclear fuel transfers between INL and SRS;
  - Uranium oxide from Portsmouth and Paducah (to NTS in 2009); and
  - Foreign Research Reactor (FRR) - planning underway for late summer of 2008 cross-country shipment.

- Event Notification – EM began working on the criteria for reporting events last year; however, the focus has changed for both notification and reporting. The criteria will be based on Section 13, Emergency Notification, of DOE Manual 460.2-1 and will only apply to EM offsite shipments.

- Proposed ANSI Standard N14.36 *(Measurement of Package and Conveyance Radiation Levels and Surface Contamination)* – EM is involved in the process to address consistent, reliable, and reproducible measurement (using a graded approach) of radiation level and surface contamination on and near radioactive material packages and conveyances.

- DOE Manual 460.2-1 – All issues have been resolved and the manual is being processed through the DOE signature chain, with publication expected in March-April 2008.

- Transportation Emergency Preparedness Program (TEPP) – Copies of the Annual Report were made available. The focus for TEPP in FY 2008 will continue to be training, with an emphasis on exercises. TEPP continues to partner with the Department of Homeland Security/Federal Emergency Management Agency on training issues.

Plenary I – Tribal Cultural Discussion

Richard Arnold (Pahrump Paiute Tribe) shared the floor for the tribal cultural presentation with Lalovi Miller (Moapa Band of Paiutes). The speakers focused on the Southern Paiute culture and how it relates to spent fuel transportation to Yucca Mountain.

Their culture, not unlike other Native American cultures, is built on a complex belief system which is often overlooked in the governmental decision-making process. Contrary to depictions in literature of the Southern Paiute people as hunter-gatherers who moved into the area, Mr. Arnold explained they did not come from somewhere else; they are of the land and have an expansive knowledge of sciences such as hydrology and horticulture. Yucca Mountain is not a barren wasteland, but is rich in plants used for foods and medicines, and serves as their church every day. Yucca Mountain is the holy land of the Southern Paiute and the Western Shoshone. The tribes cannot move if there is an accident and the land is contaminated.

Mr. Arnold observed Nevada tribes have gone on record as opposing Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste, but they need to stay involved in the process to protect their interests. He commented that explaining "radiation" to tribal elders has not been easy, as there is no word in their language for it. One elder said it could best be described as an "angry rock." The rocks are alive. They were taken without permission and are being returned in an "angry" state to be buried without addressing the "anger." Mr. Arnold said the belief is that if the "angry" rocks are placed within Yucca Mountain, the temperature will rise and the Mountain itself will become "angry." He observed even a rise of temperature of one or two degrees can have significant impacts on the plants and animals (used for foods and medicines), much as a degree or two degree temperature change in a human being affects that person.

Mr. Arnold addressed the Section 180(c) "1/2 mile" issue. He said people must travel to collect certain edible and medicinal plants and use the highway corridors extensively for traditional ceremonies such as funerals. This has not been factored into the federal government analyses. The level of coverage on tribal cultural resources contained in the typical EIS does not go into enough detail. Likewise, there are tribal concerns outside those related to cultural resources discussed in EISs, including hydrology and environmental justice. There have been violations of sacred sites, and tribal people have been denied access to sites.

More recently, he noted tribes have been involved in compiling a resource document for Yucca Mountain and contributing to the preparation of EIS text. The resource document was an effort of the Native American Interaction Program (NAIP) initiated in 1987 to protect the area's cultural resources. The NAIP involves 17 tribes and organizations from Nevada and nearby states. Dialogue is resuming on the meetings and the impacts of budget cuts.

The Nuclear Waste Policy Act of 1982 and its revisions have allowed tribes to become more involved in the Yucca Mountain process. Last year, the Timbisha-Shoshone were granted "Affected Status." It has taken 16 years for the tribes who participate in TEC to be given the opportunity to make a tribal presentation to the group. Mr. Arnold summed up his part of the presentation with the following key points:

- Indian concerns are many and have not been fully evaluated or understood.
- Tribes have an understanding of the land.
- There are spiritual impacts of the "angry" rock, including that radioactive waste may be transported along the path to the afterlife.
- Two risks are involved in radioactive waste transport: real and calculated. The tribes do not believe these risks have been adequately considered.

Ms. Miller followed Mr. Arnold on the panel by presenting a 10-minute video, "Indian Perspectives on Yucca Mountain," which focuses on her tribe's opposition to the repository. She indicated copies are available on the Web at http://www.accessclarkcounty.com. The video was a combined effort between Clark County, Nevada and local tribes. Ms. Miller went on to say the federal government divided the land the Southern Paiute shared with the Western Shoshone.

She reiterated the tribes know the resources for food and medicinal plants at Yucca Mountain and the effects of storing waste in the Mountain are still not known. Interstate 15 and the railroad run through tribal lands. She emphasized this is not barren land. Oral teachings have been passed down from generation to generation among tribal people. The young are told about Yucca Mountain and the "angry rock's" impacts on land, water, and other resources. Ms. Miller concluded up by saying tribes need to look to the future to protect the resources for many generations to come. They need to voice their opinions.

Plenary II – Evaluation of Short Line Railroads

Track Safety Standards and Regulations – Pat Edwards, Pennsylvania Public Utility Commission

Mr. Edwards began this plenary session by providing an overview of track safety standards and regulations. He discussed 49 CFR 213, including the differences between design, maintenance, and inspection standards. The rules apply to standard gauge track (56.5 inches) including Excepted track, and do not apply to rapid transit services or rail installations within facilities. Mr. Edwards observed classes of railroads include: Short Line, Regional, and Class I railroads. These are defined by revenue. In contrast, classes of track range from Excepted through Class 5. These classes are determined by geometry and the condition of the track. The class of track establishes the maximum speed on that section of track (see below).

Class of Track – Operating Speed Limits (49 CFR 213.9)

Track Class	Maximum Speed	
	Freight	Passenger
Excepted	10	N/A
Class 1	10	15
Class 2	25	30
Class 3	40	60
Class 4	60	80
Class 5	80	90

Mr. Edwards indicated the responsibility for compliance of a section(s) of track lies with the track owner. Failure to maintain the class of a section, detected through inspections, result in decreased speeds on that section of track. Non-compliance and deficiencies also result in ordered service, re-inspections, and violations/penalties. Owners may apply for waivers to the rules to the Federal Railroad Administration (FRA) for any class of track.

Track Inspections and Criteria – Bill Wilson, Pennsylvania Public Utility Commission

Mr. Wilson discussed inspection standards and requirements, including: track gauge, number of effective joint ties (ties) per unit distance, rail end-joints and tolerances, switches and junctions (frogs), and rail conditions. He noted non-class specific standards include roadbed (drainage, ballast, vegetation) and broken rails or derails.

He observed Excepted track only requires a rail gauge be maintained to 58 inches and has a maximum speed of 10 mph. It may not be adjacent to higher class track, and if it carries hazmat, it cannot be on a bridge or grade crossing, and cannot carry more than five hazmat cars. Excepted track cannot carry "passengers" (anyone who is not an on-duty agent of the railroad).

Mr. Wilson indicated inspection frequencies depend upon class, type of track and amount of traffic. Passenger rail is inspected more frequently. He stated there are currently 400 rail inspectors federally, with another 150 in the states.

Evaluation of Short Line Railroads – Mel Massaro, Federal Railroad Administration

Mr. Massaro noted most Short Lines run on Class 3 and below track, and some even run on Excepted track. He commented there are 28 nuclear power plants serviced by Short Line railroads. In addition, several Short Lines provide connections and switching between Class I railroads that serve power plants.

The FRA initiated a study of these Short Lines in 2007. The agency contacted 18 of the 28 Short Lines and received information from six of them. FRA sent survey forms requesting contact information and complete surveys of the physical condition of infrastructure and operational methods including: joint operations with other carrier(s), mechanical switching, signals, hazmat registration or training, active or passive grade crossings, and if there is any Excepted track on their sections.

Mr. Massaro indicated that based on its limited evaluation, FRA believes there is a pressing need for an in-depth evaluation of all Short Line railroads servicing nuclear power plants. In addition, he suggested DOE may want to consider other options such as transport via heavy haul truck to the nearest Class 1 railroad or perhaps via barge or legal weight truck. If rail is determined to be the most logical route, some of the issues pertaining to Short Lines that need to be addressed include:

- Are there grants available from FRA and/or states to fund infrastructure improvements?
- Would it be economically viable for DOE to pay for upgrades?
- Should the minimum acceptable standard be Class 2 track?

Mr. Massaro next presented a report on the DOE/FRA site visit to the Salem-Hope Creek nuclear power plant and the Winchester and Western Railroad. He observed the trip reviewed the rail and grade crossings, and reviewed the infrastructure at Salem-Hope Creek facility. Findings included several grade crossings and some sections of Excepted track, a barge slip and heavy-haul access that included low clearances and narrow roadways. Participants on the site visit generally agreed the restrictions implied by the prospect of rail transport tended to support barge transport as an attractive option for the Salem-Hope Creek plant.

Questions/Comments and Responses

Question: Is there was an average cost to upgrade from Excepted track to Class 3?

Response: It depends on the conditions of the Excepted track. Building completely new track would cost $1.5 million dollars and up per mile.

Question: Is there a maximum load restriction on OCRWM shipments?

Response: The West Valley shipments were less than 300 tons; however, with new TAD designs it is impossible to know right now.

Question: Who pays to maintain the track?

Response: The FRA has grant monies set aside for maintenance and upgrades; however, rail owners are ultimately responsible for maintenance. Their decisions ultimately depend on track usage and the business case.

Concurrent Topic Group Sessions – Routing Topic Group

Alex Thrower (DOE-OCRWM) opened the discussion by providing an overview of the agenda, including the following topics:

- Purpose of the standard problem and proposed work plan;
- How the routing principles document will identify basic approaches to develop a suite of routes; and
- Legislation and regulations that will impact routing decisions.

Mr. Thrower reinforced the need to remain active as a topic group and actively exchange information. He then asked for comments on the work plan. No comments were provided by attendees. He distributed a revised copy of the proposed standard problem and participants discussed the document, including the "ground rules" and "disclaimers" (i.e., it is intended for demonstrative purposes and is not intended to create any obligations on, or commitments by, anyone). Participants suggested the disclaimer be reworded or signed by DOE to encourage participation. They also discussed the resources and tools which could be used as a starting point for the standard problem, as well as the other materials referenced in the document.

Mr. Thrower commented that during the January 31, 2008, conference call, participants suggested the rail carriers perform the initial routing exercises for the 12 origin sites. According to Bob Fronczak of the Association of American Railroads, Norfolk Southern, Burlington Northern and Santa Fe, CSX, and Union Pacific have agreed to participate, and should be able to offer some routes in 30 to 60 days. AAR counsel is currently assessing whether their involvement would present any potential antitrust issues. Other participants observed getting the spent fuel to a Class I rail carrier is a key issue, as well as the use of other modes such as heavy haul or barge when there is no direct rail access. Short Line railroads and potentially Excepted track may pose challenges logistically.

Participants discussed the required information for the rail carriers to complete the problem, including the rail pick-up location(s) for origin sites without direct rail access. Discussions ensued on how to amend the write up of the standard problem exercise to have the Class I rail carriers develop routes and then have the teams meet to discuss those routes. Key resolutions included the following:

- Rail carriers should disclose the rationale for their routing choices;

- Ground rule 3 regarding "cheating" and "lecturing" should be removed from the work plan;

- OCRWM should state it "may" use the routes developed for the Section 180(c) pilot problem rather than "plans to" use the routes developed; and

- Railroads should assume the train consists will be small, that dedicated trains will be used, and the trains will include passengers (security escorts).

Mr. Thrower reiterated the carriers, like everyone else involved in the exercise, are not to be bound to any position or obligation because of their participation. He suggested that by the next TEC meeting, participants should have analyzed the routes developed by the railroads and should be able to present their comments and/or substitute routes.

On the subject of regulatory updates, Mr. Blackwell of FRA informed the group the Department of Transportation rules regarding enhanced rail security for hazardous materials transport are being issued as an Interim Final Rule and are currently under Office of Management and Budget review.

Action Items

- Oak Ridge National Laboratory will issue the pick-up points for origin sites without direct rail access to the Association of American Railroads for this exercise within two weeks.

- DOE/OCRWM will re-write the standard problem to reflect the changes recommended by the Topic Group, and re-distribute it to members within two weeks.

Concurrent Topic Group Sessions – Tribal Topic Group

A record 32 tribal representatives participated in the Tribal Topic Group meeting. Discussions were led by Julie Offner (DOE/OCRWM). Discussions proceeded as follows:

DOE Implementation Framework

Ms. Offner informed members the DOE Implementation Framework document (for the DOE Tribal Policy) was originally developed by the State and Tribal Government Working Group (STGWG). When asked if OCRWM signed the document, Ms. Offner indicated the program would prepare its own version and the Tribal Topic Group would be involved in drafting it. She noted OCRWM staff members have been working on a Tribal Involvement Plan, which will be forwarded to the group for comment. Hard copies of the Tribal Involvement Plan and the EM Implementation Framework were distributed.

Tribal Caucus Summary

At the beginning of the last two TEC meetings, tribes have had the opportunity to hold a caucus to discuss transportation issues among themselves and to familiarize new tribal representatives with the EM and OCRWM programs before the Tribal Topic Group session and TEC sessions begin. Key points of the Tribal Caucus included:

- Tribes have a lot of catching up to do within TEC and need to determine where they fit in the organization

- The Tribal Caucus Group drafted a Mission Statement, which they propose for the TEC Tribal Topic Group, along with recommendations for DOE to consider:
  - All tribes with cultural ties to Yucca Mountain should be invited to join TEC;
  - Ongoing funds are needed to support Tribal Topic Group meetings twice a year (including Tribal Caucus at each TEC meeting);
  - Direct funding to tribes is needed for planning/managing transportation;
  - Elevate TEC standing to that of STGWG; and
  - OCRWM needs to respond to recommendations to ensure continued tribal participation in TEC.

- Issues of concern to tribal members:
  - Section 180(c) funding – qualification and eligibility; impact of primary and secondary route selection; routes are crucial;
  - Better communication is needed between OCRWM and tribes;
  - Group needs to move forward with actions and assigned tasks;
  - "Affected Tribes" definition;
  - Transportation fees;
  - DOE should visit more tribes to experience their culture first-hand;
  - An "Indian-101" class is needed for all DOE staff; U.S. EPA has an excellent online course;
  - Are states including tribal lands in their claims for federal funding?
  - Tribes should tell other tribes along routes about Yucca Mountain, OCRWM, and TEC;
  - Global Nuclear Energy Partnership (GNEP) may result in more shipments;
  - Work toward more tribes reaching affected status; and
  - Budget issues including non-DOE/OCRWM funding.

Timbisha-Shoshone Affected Status – Joe Kennedy, Chairman

Mr. Kennedy made a presentation on the tribe's application for and receipt of Affected Tribe status. He also distributed copies of the following materials to the group:

- June 29, 2007, letter from the U.S. Department of Interior

- Early Warning and Urgent Action Procedure from the Committee for the Elimination of Racial Discrimination (2006)

- Papal Bull Inter Cetera of May 3, 1493

- Amended Petition Seeking Determination of Affected Indian Tribe Status of February 7, 2006

- Map of Western Shoshone lands

- NCAI Resolution #DEN-07-09 (2007) Requesting Funding for Timbisha-Shoshone Band related to Affected Tribe status

On June 29, 2007, the Timbisha-Shoshone Tribe was granted Affected Tribe status related to the repository at Yucca Mountain. Funding has yet to be granted to the tribe. The 2007 NCAI Conference addressed this issue and passed a Resolution which was distributed to the Tribal Topic Group. Mr. Kennedy stated the business plan should be available the following week.

Mr. Kennedy cited the 1787 Northwest Ordinance as stating the U.S. would hold utmost good faith toward Indians, and their lands would not be taken away without their consent. The 1861 Nevada Territorial Act said Indian lands would not become part of Nevada. He said DOE has not acquired tribal lands. He also emphasized the importance of DOE staff undergoing "Indian 101" training and brought up the issue of the Nuclear Waste Policy Act and the 1/2 mile corridor issue, saying the tribe must protect life in the Yucca Mountain region for future generations.

Questions/Comments and Responses

Question: How much will the process to achieve Affected Status cost?

Response: Mr. Kennedy will collect that information.

Question: Will the Timbisha-Shoshone receive money from DOE this year?

Response: The DOE budget was submitted before the tribe achieved status, but a line item has been submitted in the 2009 budget. Tribal representatives expressed frustration the counties and states have been receiving funding for years and it will take the tribes a long time to catch up.

The status of Oklahoma Tribes in regard to Yucca Mountain and the Tribal Topic Group was raised. Ms. Offner said she believed that was an open action item from a former meeting. She promised to get back to the group on the issue. Attendees were reminded that Affected Status deals with an entity's proximity to a specific site, not to transportation routes.

Overview of OCRWM Interactions with Affected Units of Government

Claire Sinclair (DOE/OCRWM) opened her presentation by recognizing Robert Lupton (DOE Nevada) who passed away since the last TEC meeting.

Ms. Sinclair observed the Nuclear Waste Policy Act establishes the criteria for state participation, designating affected local units of government, and Affected Tribes. Originally, ten counties were granted status, and the Timbisha-Shoshone Tribe received Affected Status in June

2007. Nye County has been granted onsite representation. DOE provides financial assistance to these affected units of government for a variety of purposes and holds quarterly meetings with them. Additional support comes in the form of computer gifting and long-term loans of emergency response and office equipment. Participants suggested in the future that local tribes be considered for similar support.

Ms. Sinclair concluded her presentation by providing the OCRWM website: http://www.ocrwm.doe.gov and her phone number (702) 794-5406. She also invited participants to visit the information center in Pahrump, Nevada.

Status of Section 180(c) Policy Development

Elizabeth Helvey (BSC) asked participants to think about a good existing model for cooperation in developing basic infrastructure to prepare for Yucca Mountain shipments and asked if DOE should help with preparing a needs assessment for one of the tribes along potential shipping routes. She then opened the floor for questions on Section 180(c).

Question: Is a pilot program still planned for Section 180(c)?

Response: Due to lack of funding, no pilot is planned in the near future.

Question: In the draft Section 180(c) policy, DOE proposes to begin funding four years prior to the first shipment. Where did that timeframe originate?

Response: DOE based the period on its experience with WIPP shipments. It is based in part of the turnover rate of emergency responders and officials.

Sue Loudner (Pueblo of Acoma) shared her experiences with putting together a radiological needs assessment. Upon completion of the assessment, the Pueblo realized they were not ready for radioactive materials shipments and developed training for their emergency responders through DOE's Modular Emergency Response Radioactive Transportation Training (MERRTT) program. In late 2007, 50 people were trained, including staff from Acoma, Laguna Pueblo, and the New Mexico State Police. Acoma is part of a joint jurisdiction for emergency response. On May 1, 2008, an exercise will be conducted involving all the local jurisdictions. The Pueblo of Acoma updates its needs assessment every year.

Ms. Helvey commented the needs assessment used by Acoma was developed by DOE's TEPP and it covers radiological materials. She added one element of Section 180(c) involves safe routine transportation, and there is no assessment form for that aspect of transportation. She asked if such a form is needed. A supplement to the 2007 Section 180(c) *Federal Register Notice* will be issued in the near term. DOE will work with the involved tribes to complete their needs assessments.

Josh Garcia (Ysleta del Sur Pueblo) summarized his recent experience with the State of Texas. His tribe has been involved in a program with the state for two years. The state approached the tribe about development of an Emergency Response Plan. The tribe is committed to developing

the plan, and has been included in the regional emergency planning effort led by the City of El Paso. Local governmental officials were invited to and attended a recent meeting with DOE OCRWM staff at the Pueblo, where an overview of the Yucca Mountain project and transportation program was presented. Currently, the tribe has four grants, including a Texas Homeland Security grant. He added the tribe needs money for dedicated personnel to handle emergency response issues. DOE needs to bring the tribes along the Yucca Mountain route into the loop and up to speed. At the conclusion of the presentation, a participant suggested DOE provide each tribe along the route with $200,000 to begin planning and skip the needs assessment approach.

Participants expressed their frustration at not moving forward and getting work done; they asked specific tasks be assigned the group. A copy of the original work plan (1998) was included in the handout folder. A listing of past task assignments and their status will be forwarded to the membership for future discussions and how to proceed most effectively to meet the needs of the Tribal Topic Group.

Action Items

- DOE will respond to Tribal Caucus mission statement and recommendations and follow-up on Denver Tribal Workshop questions.
- DOE/NV will meet with Timbisha-Shoshone to discuss next steps.
- DOE will follow-up on the status of the Oklahoma Tribes' involvement in OCRWM program and Tribal Topic Group.
- DOE will distribute the EM Implementation Framework and draft OCRWM Tribal Implementation Plan electronically, as well as an explanation of how Nevada and Timbisha-Shoshone funding levels were determined.
- The Topic Group will revisit the work plan and purpose and begin discussions on the OCRWM Implementation Framework document.
- DOE will distribute information on the U.S. EPA "Indian 101" course to Tribal Topic Group members.
- The Tribal Topic Group will schedule and hold its next conference call.

Concurrent Topic Group Sessions – Rail Topic Group

Mr. Thrower opened the discussion with a very brief summary of the activities of the various Rail Sub-Topic Groups – Inspections, Radiation Monitoring, and Intermodal. He indicated for the remainder of the session, the Intermodal and Radiation Monitoring Sub-Topic Groups would be holding separate discussions on their respective issues.

Intermodal Sub-Topic Group

Melissa Bailey (CSG-NE) led the discussion. She asked whether participants had reviewed the revised work plan and if they had any additional comments or suggestions. She noted in response to earlier comments, she had removed the sub-task relating to conducting a survey of state officials. A participant commented the introductory paragraph contained a reference to emergency management, which did not seem appropriate. The group agreed that once this minor change was made, the work plan would be considered final.

Mr. Thrower provided a summary of some of the action items to which he had committed during the last conference call. He clarified he would not be providing any formal Departmental position on the NEPA-related impacts of intermodal operations for this group. He indicated it was the role of the NEPA process, as embodied in the recently issued EISs, to address such "impacts." In addition, Mr. Thrower stated he did have comments on the State of Nevada's intermodal issues paper which was distributed prior to the last conference call; however, he indicated they were still undergoing internal review. He added OCRWM is drafting its own "white paper" on intermodal transport, and hoped to have the draft available for comment soon.

Ms. Bailey then proceeded to the next item on the agenda – a brainstorming session on the issues, relevant regulatory authorities, and technologies associated with intermodal operations. The first issue discussed concerned marshalling yards. Several participants observed the group needed to define precisely how the term "marshalling yard" applied to shipments to Yucca Mountain. They observed the traditional definition of a marshalling yard (i.e., a centralized location along a rail line at which a large consist of rail cars is assembled, potentially involving significant assembly times) probably will not apply because it is unlikely OCRWM operations will involve large numbers of loaded casks being transported at one time – cask shipments will probably be scheduled in sequence to allow for unloading and turnaround at the repository site. Participants suggested the expense of allowing equipment to sit idle argued against large consists. Security issues also would be a major concern. For these reasons, traditional marshalling yards may not be relevant for OCRWM shipments.

The next topic of discussion dealt with the administrative and regulatory requirements of states and local governments that might apply to intermodal shipments. Participants identified the following intermodal issues that might require the involvement – from a planning or regulatory approval standpoint – of a state or local government:

- Time limits for storage at an intermodal transfer point
- Size and weight restrictions (e.g., bridges and roads)
- Permitting for intermodal shipments
- Inspections
- Escorts (e.g., single state vs. multiple states)
- Timing of intermodal shipments (e.g., conflicts with local events/priorities)

The group also discussed specific forms of intermodal transport (i.e., barge and heavy haul trucks) and identified a number of entities the group should consult regarding the feasibility of intermodal shipments. For barge transport, these include, but are not limited to: the U.S. Coast Guard, the Army Corps of Engineers, and state coastal zone management authorities. In addition, participants recommended contacting a number of entities that had already been involved in large-scale barge shipments (e.g., reactor vessels, Big Rock Point nuclear power plant). For heavy-haul trucks, these include: U.S. Surface Transportation Board, State Departments of Transportation, and equipment providers – both in the U.S. and in particular, France and Sweden.

Action Items

- Mr. Thrower will distribute DOE comments on the State of Nevada's intermodal issues paper to the entire Intermodal Sub-Topic Group, as well as its own paper draft when available.

- Ms. Bailey, with the assistance of the OCRWM support contractor, will conduct preliminary research (e.g., internet-only) on state and local requirements affecting intermodal transport. In addition, they will identify or obtain potential case study data/lessons learned from previous intermodal shipments.

Radiation Monitoring Sub-Topic Group

Cort Richardson (CSG-NE) reported the Radiation Monitoring Sub-Topic Group held a conference call on October 11, 2007. He then distributed the meeting minutes, a membership roster, and a draft work plan. After introductions, attendees reviewed the minutes from the conference call and discussed specific areas from the call. Participants approved the conference call minutes.

Mr. Richardson stated the objectives for the group were to adopt the work plan and develop a questionnaire to survey the states to determine their need and ascertain current inspection-related practices.

Work Plan Topics and Issues

The following were identified as additional areas of interest:

- New technology and advanced equipment capabilities. Members of the group will attend relevant meetings and conferences and prepare reports on technological advances to the entire sub-topic group.

- The work plan should include specific steps to encourage, promote, and implement the concept of remote monitoring.

- If tank cars are equipped with monitoring devices, additional effort should be expended assessing how these devices would communicate with or be monitored by the railroads.

- The use of remote monitoring equipment in areas is unexplored. The advancement and development of technology can increase knowledge and help the industry know what to ask Congress for in the future. Alternate uses of the equipment could help instantly categorize a smaller incident, which could decrease costs and manpower per incident.

- The inclusion of dose rate monitoring in the cab of the locomotive.

Standardized Radiation Monitoring Survey Issues

Mr. Richardson noted the questionnaire would attempt to identify lessons learned on such topics as point-of-origin, minimizing radiation monitoring stops, the use of standard formats, and the use of solution-based systems. The questionnaire would poll the states and regional groups on performing radiation monitoring inspections and surveys using a standard format. It would seek to determine their needs and current practices, including intermodal transportation ramifications. The following are key points discussed during the development of the questionnaire:

- Some states have to conduct their own monitoring and they cannot give up the option to self-inspect a shipment. Personnel in these states must be able to tell their Governor they actually conducted a safety inspection and a radiological survey. Participants also stated if data are made available online, the survey could be delayed to a later, more reasonable stopping point – excessive stops at every state border would be unworkable.

- If a survey is conducted during the normal crew change, it can be minimized by implementing procedures constrained by the ANSI standard, using similar technology, and standardizing the survey. Because minor derailments would prompt the need for a new survey, and intermodal transportation could complicate the process, inspections or surveys completed in a standard format may not be the solution.

- The issues of contamination and radiation cannot be dismissed. Both areas are regulatory requirements, so they have to be closely monitored. Even though contamination may not increase, shouldn't every aspect of the regulation be verified?

- How should local communities, such as Nye County, be addressed? Are they a separate issue? It seems the state would take the lead in determining the answers for the questionnaire, but would get input from the local communities. State points of contact are responsible for disseminating information up and down their state. Questions concerning reporting need to be received by everyone along the route in the form of shipping papers and FRA notices.

- Have there been any problems with previous shipments which made too many stops and conducted too many surveys? If so, how many states did it involve? Is this a widespread issue? Will sending out these questionnaires and gathering this data garner solutions and problem-solving information?

- States and regions may have trust issues if they are receiving common, standardized information from other states. On the other hand, the proposed ANSI Standard should address those kinds of concerns. Additionally, most questions concerning surveying could possibly be developed from the ANSI Standard.

Proposed Questions

Participants suggested the following questions be incorporated into the questionnaire:

- What type of information will your state accept and concur on for a point-of-origin standardized format?
- What types of technology are being used to shorten physical inspections and increase productivity?
- How do you determine whether or not weeping casks were adequately de-contaminated?
- Would your state accept the original survey from the original terminal point?
- Does your state have the option of not inspecting if information has been made available from the original point-of-origin?
- Would your state accept a survey completed by a federal escort?
- What type of equipment is currently being used in your jurisdiction? Are the measurements expressed in common terms that are accepted by other states?
- If a train stopped at a designated crew change point, could the municipality complete the survey?
- Does your state complete surveys because it is a regulatory issue?
- Are there specific capabilities needed in your state to make your process more efficient?
- Are measurements used in your jurisdiction standardized by ANSI?
- What are your state's escort requirements?
- What other radiological surveys are completed in your state?
- If survey data were made available via the Internet would your state accept it? Would the availability of these data decrease the number of surveys conducted in your state?
- Would survey data collected by a DOE escort be accepted in your state?
- Would the state accept a survey completed by a DOE escort in the case of an accident, or would the perception of self-regulation make acceptance impossible?
- Would your state accept reciprocal survey information?
- Are local inspectors responsible for conducting surveys in the case of minor derailments?
- How does your state define an "accident?"

- How is your state notified of impending shipments?

- Is your Governor consistently notified seven days before the shipment arrives?

Action Items

- Mr. Richardson will prepare a draft questionnaire and circulate it to members by March 5, 2008. Members will provide their comments by March 21.

- The questionnaire will be finalized and distributed to SRG staff persons, designated state contacts, and CRCPD. Questionnaire results will be distributed in report format in early May.

- The next sub-group conference call will be scheduled after the development, distribution, and briefing of the questionnaire.

Plenary Session III – Addressing Risk Perception

Dr. Hank Jenkins-Smith (Center for Applied Social Research, University of Oklahoma) talked about the National Academy of Sciences' Committee on the Transportation of Spent Nuclear Fuel and High-Level Waste study, as well as his own research, findings, and opinions on risk perception. He explained the idea of social risk is not the same as health and safety risk, and it arises from social processes and perceptions that have socio-economic (employment, congestion) as well as psycho-social impacts (i.e. anxiety, stigma, property values, tourism). The origin of the risk, not social processes or physical processes, distinguish social risk.

Research on social risk includes the special nature of *nuclear* risk perception. The idea of risk is context dependant and includes the idea that you take on risk because you are pursuing some benefit; in the case of nuclear waste, those benefits include the notions of energy, security, and environmental gains. Many of the gains from nuclear are either shrouded in secrecy (security of nuclear weapons) or generally ignored (nuclear power, decreased greenhouse gases), which leaves the conversation about nuclear waste to focus on the negative. Social amplification and attenuation of these perceptions happens when out-of-the-ordinary events occur and are reported to the public-at-large. Institutional responses are the only reaction, but come at a cost (e.g. slowing of progress).

Risk Perception

Perceived risks can be shaped in part by gender, cultural, and ethnic dispositions. People perceive threats to their person, home, etc. as disproportionately larger than those more external to them, and it is difficult to quantify this, but is central to the role of trust/confidence.

Risk in relation to any activity is associated more with the outcome of the activity, be it positive or negative. Social risk is embedded in the context of the outcome. But many people only perceive the downside of the outcome, creating a baseline of zero risk tolerance for future

activities. Social risk is when people are faced with signals that are subsequently amplified within their immediate environment or realm of influence.

Confidence in the source of the indicator of risk ("signal sender") and the listener's expectations of that sender greatly influence the message (i.e., we devalue the signal when we are used to hearing it from that source, but increase the value when the signal is different than that which is expected). But what is the trustworthiness of the source of the signal? Social risks are mainly amplified by the media and special interest groups, and, many times, amplification turns into the need for institutional responses in the form of laws and regulation.

Individual or cultural perception of risk is shaped at least in part by an individual's demographics. But the concerns of any individual should never be marginalized because of their demographics, and their responses and reactions cannot be expected to be uniform. Reactions to risk are manifold, but the two extreme positions include the tendency to ignore it ("sleeping dogs" approach) and to overreact ("hyperbolic cats" approach). The former approach is used in hopes that it "goes away" or doesn't become a problem, while the latter involves often intense and extreme speculations about possible risks. Both approaches tend to be extreme and seldom reflect the position of the public-at-large.

Dr. Jenkins-Smith suggested DOE has generally employed the "sleeping dogs" policy – essentially perceived as ignoring the concerns of the opponent. On the other hand, the opponents (e.g., the State of Nevada) are employing the hyperbolic approach; hiring social risk researchers and others to dominate the field that has been handed over to them. The result has included a mostly one-sided debate, with the DOE being predominantly reactionary. The actions result in an unbalanced scene where research is not given equal weight.

National Academy of Science Study

Dr. Jenkins-Smith indicated the problems in the Yucca Mountain Program are not scientific or engineering based, but rather social and political. However, the social risks have been given much less attention. The Committee concluded social risk poses a challenge to the transportation of spent nuclear fuel, but transportation planners can take proactive steps to characterize, communicate, and manage the social risks. Managing social risk can be hard work because the outcome may differ from desired expectations.

The Committee recommended two ways of addressing this problem: the first to expand membership and scope of advisory groups (e.g., TEC) to include experts and stakeholders to identify perceptions, impacts and management options with a practical problem-solving focus and foster a continuous learning environment. The second was to establish a focused advisory group on transportation risk which is explicitly designed to provide advice on characterizing, mitigating, and managing both social and health and safety risks (e.g., Nuclear Waste Technical Review Board).

Research

Agencies must approach social risk with an effort to understand, a bit of humility, and essential research tools. Current research has looked at public perceptions, knowledge and preferences of nuclear issues. The public knowledge on U.S. energy issues included perceptions of risk, energy

alternatives, etc. These studies need to be careful to not frame questions or stimulate certain responses: polling tends to "push" a certain answer, while properly constructed surveys do not. Surveys ask the same questions repeatedly over time being careful not to bias the answers in the process.

Public perception studies included annual surveys which revealed people's concern over energy are among their top concerns; primarily because of the associated costs and the lack of control over resources. Support for nuclear energy is growing; perceived risks holding steady, but perceived benefits are increasing. Support for new reactors is increasing and the top concerns are operational safety and waste disposal. A centralized repository is the preferred disposition solution.

The surveys demonstrated most Americans do understand where most of the domestic energy is generated (85 percent from fossil fuels, eight percent from nuclear and six percent from renewables (mainly hydro-electric)), where most of the greenhouse gases are created (fossil fuels) and where the U.S. has the greatest reserves of energy (coal). People did not understand the primary sources of energy imports (Canada and Mexico).

People's perception of the risk of nuclear is holding steady (with a slight decrease in the perceived risk of transportation). The risk in nuclear is associated with fear of terrorist attacks, transport accidents, power plant accidents, use in building nuclear weapons. But their appreciation of the benefits of nuclear is increasing. As time has progressed, the balance of pro- vs. anti- nuclear sentiment has been shifting more to the positive. Conversely people's understanding of what is currently being done with the waste is incorrect (one-third think Yucca Mountain is already open).

Studies on Property Values

Study of perceived risk (in this case the shipment of radioactive materials) and property values demonstrated the perception of risk may adversely affect property values. These effects are not uniform, but they do persist. A study on property values included assessing the impacts on property values in South Carolina where many shipments of SNF occur, and included over 250,000 property transactions over the period from 1990-2005.

The first shipments examined began in 1994, mostly by rail from the Port of Charleston to SRS. The initial stages received a great deal of media, activist and political (governor's office) attention which eventually dropped off dramatically.

Interestingly, the perception of risk of accident increased slightly between 1994 and 1995 while the perception of risk of rupture and injury/death to the population slightly decreased during this period of intense discussion. However, in 2005, after a decade of transportation without incident, the perceptions of risk of accident, rupture, and injury all increased. It was pointed out by participants this could this possibly be from the effects of 9/11 or the Graniteville chlorine tanker accident.

In considering the real estate transactions local to the transportation corridors, and accounting for all other variables, it was found that there was a drop of approximately three percent in the value of homes in one county (although no effect was found in two others). In a similar case study of

lead smelters in the metropolitan Dallas area, the effects were more pronounced. Often these effects occur but are not sustained ("shock"), but in both the Charleston and Dallas cases the effects did persist.

Waste Isolation Pilot Plant (WIPP) Case Study

There are two hypotheses for reactions to public perception: "bow wave" wherein the opposition is temporary and passes, versus the "rising tide" of opposition wherein it increases and persists.

In a study from 1991 to 2001, at the University of New Mexico which considered WIPP, it was found transportation was a major concern. A survey of respondents in New Mexico demonstrated the support for WIPP began to increase right before WIPP opened (potentially when the EPA and others published analyses) and continued to increase after it opened. The perception of risk of transportation during that period of time was high and decreased as operations neared indicating the "bow wave" type of reaction. There was robust discussion in the run-up to WIPP and unlike the Charleston case there was no hyperbole (in the case of Charleston from a high office (the governor).

Conclusions

Dr. Jenkins-Smith stated that social risks posed by nuclear waste transport can be both significant and resilient. It is important to communicate successes (in the case of Yucca Mountain, the lack of this communication, combined with the hyperbole of the opponents has been very adverse to the program). Allowing a "sleeping dog" to lie will not benefit any program, only delay it and alienate stakeholders from discussions. The shifting context of public views on nuclear energy including energy security, greenhouse gas reduction and increasing perceived need of nuclear power has provided a perfect time to act, he suggested. There should be more input by review boards and groups such as TEC. Monitoring of social risk, policies designed to address these perceptions, and operational responsiveness is rewarded (as is evident in the case of WIPP).

Questions/Comments and Responses

Question: Did the case study of Charleston account for the closure of the Naval base during that time?

Response: It did. The comparison considered the change in values with respect to distance from the rail line and it consistently decreased with proximity. I was surprised to find both that there was an effect and that it was lasting.

Concurrent Breakout Sessions – OCRWM Issues

Mr. Moussa began with an update on the status of the NTP. He indicated the plan referenced DOE's Transportation Practices Manual, the Program Management Guide, and EM's Transportation Program. He discussed the key objectives of the plan, including:

- Providing a history of OCRWM transportation planning;

- Providing an overview and description of National and Nevada capital asset acquisitions and the identification of system components;

- Incorporating stakeholders issues and how they were resolved and outstanding issues;

- Addressing transportation operations including operational management and planning, institutional program, logistics, emergency preparedness and Section 180(c) of the NWPA;

- Providing a list of requirements and standards specific to transportation;

- Addressing cost and schedule; and

- Outlining the roles and responsibilities of federal, state, tribal, and the private sector.

Participants cautioned OLM to take its time refining the NTP. They observed the program is not scheduled to ship for several years, so there is no need to rush such an important planning effort. Another participant suggested OLM prepare an overview of the plan which provides some background discussion on how DOE reached its decisions before releasing the NTP to the public for comment.

Another participant identified the following elements that need to be contained in the plan:

- A discussion of how waste acceptance will be integrated at both ends of transportation;

- An explanation of the rational for ordering the retrieval of casks and how OLM plans to build a train to transport them to Yucca Mountain;

- A detailed discussion of the steps involved in training and routing; and

- An explanation of DOE's role versus the state's role in notifying local communities on emergency response.

Many participants remained somewhat unclear as to the purpose of the NTP. They asked what the plan is supposed to do. Is it an operations plan or a policy document? It seems like the document is an update of the OCRWM Strategic Plan and Business Plan and not an implementation plan. They also asked if DOE plans to develop an operations plan. Mr. Moussa clarified the NTP contains descriptions of major systems design, acquisition of capital assets, operational development and logistics management. It is not an operational plan for specific shipments. He indicated DOE does plan to develop an operations plan, but a timeline has not been determined. He stated OLM hopes to release the NTP within six months. Participants also made the following specific comments/questions:

- How will overweight truck shipments will be evaluated and addressed in the plan?

- Explain the difference between a collaborative party and a party with cooperative status.

- Provide information on the infrastructure development regarding the transport of shipments from the utility sites to the Nevada Rail line. The infrastructure section needs more detail. Don't leave it just to the Nevada Rail EIS.

- Integrate the risk perception concepts discussed during the Plenary III session into the NTP.

- Don't like the concept of a "living/breathing" document.

- Address comments from the EIS that could potentially change content within the NTP, specifically logistical issues.

Some participants requested DOE discuss the document in detail at the next TEC meeting and give participants a chance to raise specific concerns. Others participants recommended DOE form a TEC Topic Group or a working session to discuss the elements and content of the NTP. Several participants suggested holding conference calls on the NTP prior to the next TEC.

Communications Topic Group

There was a consensus among participants that they would like to revive the Communications Topic Group. Participants requested DOE develop a proposed approach for reconstituting the group and distribute it to TEC members for approval. Several comments and suggestions were made regarding the overall purpose and structure of the group, as well as what tasks it should address, including:

- The U.S. Transport Council is looking for a private vendor to loan DOE a cask for demonstration and education purposes. The group should explore this opportunity.

- Use the Section 180(c) Topic Group as a model, but having a successful topic group depends more on having the right people participate than on how the group is structured.

- Suggested tasks for a Communication Topic Group include:
  - Reviewing fact sheets;
  - Improving the OCRWM website;
  - Updating the key messages with social risk considerations;
  - Revisiting products that are already developed; and
  - Revising the format of transportation program to ensure integration of stakeholder input.

- Build a communications plan to establish a communications outreach program.
  - Has OCRWM developed a communications plan for the project? Messages are communicated differently depending on the audience. Maybe the topic group could help OLM develop that plan.
  - Will DOE allow TEC to participate in development of a communications plan?

- To what extent does DOE want to link the OCRWM Program with support for the revival of nuclear power or global warming? It would be helpful if the Communications Topic Group developed a fact sheet on this topic.

- Incorporate the concept of social risk into the Communications Topic Group.
  - The group would require a broad membership.
  - Other avenues for mitigating risk perception include emergency response exercises, pilot programs, and exhibits.
  - Work closely with emergency responders. There is a great knowledge to be learned from these interactions.
  - Support grass roots efforts (e.g. – working with fire marshals) to build trust and confidence.

Creating and Delivering Messages

Participants offered a number of general comments and suggestions on improving communications and stakeholder interactions, including:

- OLM should rephrase its messages and talking points. For example, state upfront that OLM is aware transporting spent fuel can be dangerous. Recognizing it is dangerous OLM has spent a lot of time studying safety and taking precautions and you've been successful.

- Stating these shipments are a small portion of the total amount of hazmat shipped doesn't change public perceptions.

- Work with the fuel transfer program to better integrate within DOE.

- Fire chiefs have credibility; OLM should be working with them to get the word out about these shipments.

- A creative approach is to reach out to other parties who can communicate and carry out OLM's message – state legislatures, meetings of emergency managers, etc.

- OLM shouldn't publish relative risk information; let other agencies speak for OLM.

- The information OLM is using is good for stakeholders because this group is an informed audience. But it's not effective as a public communications tool.

- The relative risk information in OLM's slides is important to CVSA because we need to include it in our training function for law enforcement.

- OLM has many different audiences – tailor your message to each audience.
  - Suggest customizing information products for states and tribes

- Don't reiterate what information products other Departments are producing, but rather, direct them to that Department's website.

- Suggest DOE host teleconferences on the topic group to supplement TEC meetings.
  - If funding doesn't allow for travel, consider holding video and teleconferences.

Update on Section 180(c)

OLM published the draft *Federal Register* Notice on July 23, 2007. The comment period closed on January 23, 2008. OLM received over 50 comment documents from state and regional groups, individual states, tribes, counties, affected units of government in Nevada, and the State of Nevada. OLM is currently classifying the comments and had planned to implement a pilot program in FY 2009-2010; however, due to budget cuts, this timeframe is no longer achievable. OLM is currently investigating other opportunities to partner with other programs on emergency response activities. Participants offered a number of suggestions and observations regarding the Section 180(c) program, including:

- OLM should observe or participate in Clark County's Urban Areas Security Initiatives emergency response exercise for 2008. Planning had just started for the scenario and the roles. This is the time to start working together.

- Identify inter-departmental agreements with DHS and OLM. Piggyback on their funding and their training programs for first responders. Activities could include test plan, operations plan, and a communications plan.

- Contact states that have significant radiological shipments.

- Tribes should be observers of training and emergency response exercises.

- Reactivate the Section 180(c) Topic Group as a model to work through what the grant process and application process will look like. Prepare a sample application as a training tool.

- Use WIPP program grant application procedures. Can EM provide money to states for Section 180(c) pilot project?

- Can Section 180(c) support capacity-building? Some tribal governments do not have basic infrastructure and will not be prepared to handle the Section 180(c) program without capacity-building of both their financial controls and their emergency management infrastructure. OLM should begin preparing for shipments very early on in the planning process.

- The EPA has a General Assistance Program which provides each federally-recognized tribe a grant to help them open an EPA office to address environmental issues and to educate the tribe on the environment is about. Suggest OLM institute a similar process for tribes to be familiar with Section 180(c) grant application process.

- OLM should integrate with other DOE programs. For example, OLM could perform a pilot with EM's spent fuel transfer project and coordinate the effort through TEC. Use states which are directly impacted by EM transfers as pilots.

Concurrent Breakout Sessions – EM Issues

Several representatives from DOE's EM program provided updates on various activities, including spent nuclear fuel (SNF) transfers, LLW disposition, and shipments to the WIPP.

SNF Transfer Shipments between SRS and INL – Scotty DeClue, SNF Transfer Project Integrated Project Team, Savannah River Site

Mr. DeClue presented the status of planning and milestones for the SNF Transfer Project for shipments between the Savannah River Site (SRS) and the Idaho National Laboratory (INL). In 2006 DOE approved the Enriched Uranium Disposition Project Plan which enabled the H-Canyon facility at SRS to process aluminum-based SNF. The Enriched Uranium Disposition Project Baseline has been approved (2007) and a Supplemental Analysis and Amended Record of Decision is being developed to designate H-Canyon processing of aluminum-based SNF.

Completion of the project and the transfer of SNF eliminates the entire SNF inventory at SRS, reduces the number of shipments of SNF from DOE sites to Yucca Mountain, recovers fissile materials for energy use, and eliminates the need for SRS to build and operate a SNF packaging and dry storage facility. Specific elements of the status update include:

- H-Canyon is designed to dissolve aluminum clad SNF, but it does not have the capability to dissolve the non-aluminum fuel. The Idaho Settlement Agreement allows for the shipment in of non-aluminum fuel only if a similar amount of shipments leave Idaho.

- Shipments are planned to start in October 2009 and are expected to finish by 2019.

- Routes being evaluated are currently being used by the FRR program for cross-country shipments of SNF going to Idaho. The SNF Transfer Project is proposing two to three shipments per month.

- Activities to be completed prior to initiating the shipments include completion of the NEPA documentation; issuing the SNF Transfer Transportation Plan and the Security Plan; completing SRS and INL facility modifications, procedures, and training; and conducting a DOE readiness assessment.

- The project is using the Domestic Research Reactor, FRR, and WIPP shipments as a basis to design the transportation program. All transportation plan elements in 460.2-1 are in the draft plan but '*to be determined'* placeholders are included. The project is currently working to determine communication details including when, how, and who to notify about the shipments.

- Management of the Security Plan and how to classify the information to be distributed will also be evaluated.

- An Integrated Project Team of DOE and lab entities was formed. Currently the team is working the issues and consideration has been given to any opportunity which may arise to begin shipments earlier than October 2009.

- Stakeholder interaction is welcomed as effective communication and will be the key to success.

Discussions with TEC members during the three sessions included:

- Two shipping casks are currently under consideration, the GE-2000 and the NAC-LWT. NAC owns their casks and DOE owns one GE-2000 cask which this project may use for initial shipments. These are truck casks, as the shipments are being planned by road. Cask availability is not a constraint on the project at this time. To minimize shipping timeframes, the current planning involves sending a cask from SRS to INL, and unloading it and reloading it at INL for a return shipment to SRS. The shipping window is about four to five days in transit, with a couple days for unloading and reloading prior to the return trip. Impacts from state restrictions (due to special events, etc.) will be factored into final shipping schedules.

- Routing comments included discussions on current NRC approved FRR routes being from SRS to INL only. Routes are not yet designated, but routes in both directions will be identified. The project will look at routing options that may be used in winter months or for security reasons. Preliminary routes should be available later this spring. There may be routes other than the current WIPP and FRR routes to maintain an option to ship during more inclement weather months. TEC members questioned use of a southern route because in the past a southern route from SRS to INL was not approved because it did not meet the time in transit criteria from the regulations. Mr. DeClue emphasized the project will probably use existing routes for initial success, but they may need a southern route to meet their needs due to weather considerations. A participant said they had not seen an interpretation that says a different route – one that does not meet the "shorter quicker rules" – can be used due to inclement weather. They indicated a General Counsel interpretation may be needed. State representatives added they hoped the proposed routes included more than just FRR routes. Another participant suggested some routes that were dropped from the original FRR plan might be good options. Mr. DeClue said DOE will be working with the states and tribes on routing decisions.

- A participant noted the state programs understand the NRC licensee requirements and have worked with them a long time so if this project commits to follow NRC regulations and protocols then the states will be more in tune with what the project is doing. Mr. DeClue noted that in accordance with the DOE Manual 460.2-1, the shipments will be equivalent to NRC requirements.

- Emergency preparedness along routes continues to be of interest to state and tribal representatives. Several participants emphasized if DOE is looking at routes which are not typical, the states and tribes will need more notification time so they can plan and prepare. Another participant asked if DOE planned to provide funding to the states for training and emergency preparedness. Mr. DeClue responded funding for states and tribes is not part of the SRS operations budget. The participant clarified the request was not for more funding for the regional groups but actual dollars for states to use for training. Mr. DeClue referred those requests to the DOE/HQ Office of Packaging and Transportation.

- A participant inquired about the feasibility of using the SNF Transfer Project as a pilot for the OCRWM Section 180(c) program. OCRWM does have representation on the Integrated Project Team but currently issues exist regarding resource availability.

- Discussions also clarified the Transportation Plan for the SNF Transfer Project is completely separate from any planning and documentation for the OCRWM program. However, EM and OCRWM will work together to ensure communication with the intent that both programs learn from the planning processes and OCRWM may be able to step in and use the same communication networks as EM. Mr. DeClue added the concept is to build an umbrella transportation plan with appendices which will be updated annually to keep points of contact and rolling information up to date. The regional groups will be used to update those appendices.

- In answer to a question about the stakeholder workshop which had been discussed at the July 2007 TEC, Mr. DeClue advised TEC members that currently the workshop has been deferred and is awaiting a decision from DOE/HQ.

Low-Level Radioactive Waste Disposition Activities Update – Douglas Tonkay, EM Office of Disposal Operations

Mr. Tonkay provided an update on DOE waste disposition activities for LLW. He commented the Department has formed a Low-Level/Mixed Low-Level Waste Corporate Board (LLW Corporate Board) chaired by Frank Marcinowski. The LLW Corporate Board uses a commercial business model to more effectively manage DOE LLW/MLLW activities and is based on the Transuranic Waste Corporate Board. The LLW Corporate Board is intended to (1) promote efficient and cost-effective treatment and disposal alternatives and use of DOE regional disposal facilities and (2) identify and address complex-wide issues and coordinate operations.

With respect to Greater-than-Class C low-level radioactive waste (GTCC LLW) disposition, Mr. Tonkay noted the following:

- Section 3(b)(1)(D) of the Low-Level Radioactive Waste Policy Amendments act assigns DOE responsibility for the disposal of GTCC LLW. States have responsibility for other LLW disposal.

- Section 631 of the Energy Policy Act of 2005 requires that before DOE makes a final decision on the disposal alternative(s) to be implemented, it will submit to Congress a report that describes all alternatives under consideration.

- GTCC LLW is commercial waste (non-DOE) including sealed sources, activated metals from nuclear utilities, and other waste.

- "GTCC-like" DOE waste is non-defense transuranic waste and waste without a confirmed path to disposal.

- The total inventory of waste is estimated to be 5,600 cubic meters, but this subject to change based on public comments and additional waste streams that may be identified.

- There is no firm date for planning and issuance of a draft EIS. The final EIS is slated for issuance in 2009, at which time the project phases will be determined. For information on the EIS, consult the website at www.gtcceis.anl.gov.

Mr. Tonkay then noted the Waste Information Management System (WIMS) is an annual DOE waste forecasting method. The data is provided at a "hybrid stream" level. The next update is in progress and expected to be out in March 2008. Currently WIMS includes LLW and MLLW data. DOE anticipates adding TRU waste data from WIPP. The information is used to project the strategy for planned projects. The 2008 update will include the number of shipments planned in FY 2008-2009 for EM waste streams. WIMS was built and is maintained by Florida International University and is publicly available at: http://wims.arc.fiu.edu/wims.

Mr. Tonkay provided a brief virtual tour of the Florida International University website for WIMS and received the following comments:

- Several members indicated it would be preferable to have a single place to maintain information (currently have WIMS, PSR, WIPP, FRR).

- One participant noted the decision to remove the university shipments and the SNF shipments from the Prospective Shipment Report gives an incomplete picture of DOE shipping activity.

WIPP Update – William Mackie, DOE WIPP Institutional Affairs Manager

Mr. Mackie presented an update on WIPP activity which included:

- The semi-annual notification letter, which went out the end of January, now includes a breakout of Contact Handled (CH) waste, Remote Handled (RH) waste and inter-site shipments. About nine inter-site shipments (Hanford and SRS to INL and return) will be made.

- Currently WIPP has made 6,292 shipments of CH TRU waste and 109 shipments of RH TRU waste. All RH shipments were out of INL with over 100 made in less than one year.

- A carrier contract has been awarded to CAST Specialty, Inc. of Henderson, Colorado. They started shipping under a new contract June 1, 2007 with 15 tractors and teams.

- A Small Business Set-Aside Contract was awarded to Visionary Solutions, LLC of Oak Ridge, Tennessee and they started shipping on November 26, 2007, with 11 tractors and teams. Currently they are moving only CH waste but will soon begin transporting RH waste.

- WIPP has a goal of five RH shipments per week and by end of year if weather holds, the INL shipments will be completed. In June and July the first of two shipment campaigns out of Argonne will occur. INL and ANL have all their approvals in place, only waiting on weather for ANL shipments. SRS shipments will start in July with approximately two

shipments per week for 19 shipments along I-20. The first two shipments will use RH72B casks. Training will be ongoing from Oak Ridge to Birmingham, Alabama, which will "open" those routes for both contact and remote handled waste shipments from ORNL. INL remote handled is anticipated to be done in early 2009. ORNL, SRS, and LANL shipments are contingent on the receipt of approval from the New Mexico Environment Department and/or the U.S. EPA.

Recent events meeting the event notification and reporting criteria include:

- 12/6/07 – A WIPP tractor was struck by a private vehicle on State Road 6 near Wellington, Utah. The private vehicle was driving left of center and struck the tractor, bounced off and struck the left side of the trailer damaging the first two tires and rims. The damaged tires and rims were replaced and the vehicle was released from the scene to proceed to a Kenworth repair shop for assessment of damage to the tractor. The trailer was left at the shop and the tractor bobtailed to INL to pick up a loaded shipment for transport to WIPP. At INL a Level VI CVSA Inspection was conducted and the shipment was found to be safe and continued on to WIPP.

- 1/13/08 – The WIPP tractor struck a deer on Hwy 285, 15 miles south of Artesia, New Mexico. The deer ran out from the center median and struck the tractor on the left front causing damage to the bumper and retaining brackets. The New Mexico Motor Transportation Division State Inspectors responded to scene to access damage. A Level VI inspection was conducted. The tractor/trailer was found to be safe to continue to WIPP Site where repairs were made at the terminal.

Questions/Comments and Responses

Question: How did Visionary Solutions, LLC, qualify for the WIPP Transportation contract as a small business when DOE/HQ had previously denied them the TEPP contract?

Response: Visionary Solutions, LLC, is multi-faceted business and early on they did participate in TEPP, however, the trucking contract is a second company of Visionary's and qualifies as a small business.

Concurrent Breakout Sessions – TEC Direction and Priorities

Alex Thrower facilitated a series of discussions among stakeholders regarding the future direction and priorities for TEC. He observed the session would cover three general areas: the TEC charter and membership, topic group functions, and suggestions on the most appropriate TEC meeting format.

TEC was formed in 1992 to improve coordination among the DOE and external groups interested in the Department's transportation activities. OCRWM co-chairs TEC with DOE's EM program and together the TEC process provides an opportunity for broad based input and information exchange from varied organizations. Mr. Thrower emphasized while the semi-annual meetings were a central component of TEC, the organization also included a host of on-going activities and consultations, including topic group meetings, conference calls, document

reviews, field trips, and other special initiatives. He suggested improving TEC required a top-to-bottom assessment, followed by the development and implementation of a diverse set of reforms. Mr. Thrower then asked a series of very broad questions, including:

- Do we need to re-visit the TEC charter, goals, and objectives?
- Are there other groups or individuals that need to be included as members?
- Should we reorganize the topic groups? If so, how?
- Are there ways to restructure the TEC meetings to make them more effective?

He then asked participants to provide their observations on the strengths and weaknesses of TEC, as well as any specific recommendations for change. A brief summary of participant input is provided below.

Positives

Participants agreed TEC has real benefits and broad support, but it needs improvement. They observed topic group agendas should continue to be task oriented. In general, there was broad support for semi-annual TEC meetings, although should DOE elect to hold them less frequently, the meetings would need to be longer.

Negatives

Several participants suggested the TEC goals and objectives are not clear. They recommended the TEC charter be reviewed and revised. In addition, they commented the topic groups haven't shown enough progress or generated tangible products. Several participants indicated the topic groups were too large to foster productive discussions and managing such large groups was troublesome. They also noted all stakeholders were not adequately consulted in setting the agendas for the TEC meetings. A number of participants suggested DOE needed to provide timelier reporting on topic group progress and results. Lastly, several participants acknowledged while recent budget cuts undoubtedly were significant, DOE should spend more time focusing on how it planned to spend its limited resources, instead of concentrating on the negative impacts of decreased funding.

Suggestions

Participants provided a number of suggestions for improving TEC, ranging from strategic to logistical. A summary of these is provided below:

<u>TEC Meetings</u>

- Move the topic group portion of the TEC meetings to the first day and the general plenary sessions and topic group reporting to the second day.
  - Restrict attendance to topic group members.
- Hold a general meeting once each year and a second meeting only for the topic groups.

- Start the TEC meetings at mid-day of the first day and end at mid-day on the third day.

- Reestablish an orientation session (i.e. TEC 101) to be held the morning of the first day.

- Hold one of the two annual TEC meetings in Washington, DC.

- Stick to scheduled start and stop times.

- Consider using "free" facilitators.
  - State officials within host state agencies.
  - Existing DOE contractors (if qualified).

- Institute an "open mic" session at future TEC meetings to provide attendees an opportunity to present their positions or discuss papers that may not be fully consistent with the established agenda.

Membership

- Clarify the status of state and local government representatives as members of TEC (member vs. participant).

- Actively recruit new TEC members and new topic group members.
  - Encourage technical tribal staff participation in other topic groups.
  - Increase participation of subject matter experts (e.g., industry reps).
  - Request topic group preference from attendees on the registration materials.

Topic Groups

- Form new topic groups, including:
  - Communications (to address risk communications as well as more effective outreach);
  - Operations;
  - Emerging technologies; and
  - Elevate existing sub-groups.

- Reorganize existing topic groups.
  - Remove inactive members; and
  - Eliminate redundant representation.

Other Issues

- Distribute the summary of TEC meeting evaluations to attendees.
  - Implement on-line TEC meeting evaluations.

- Re-institute a TEC Planning Committee (composed of DOE staff and TEC members) to assist in agenda development, obtaining plenary speakers, identifying topic group leads, and maintaining and revising TEC structures.

- Explore different ways of distributing drafts and other documents.
  - On-line meetings;
  - Blogs;
  - File sharing; and
  - Other technologies.

- Increase the profile/involvement of EM in TEC.
  - Build on experience/lessons learned from on-going and planned shipping campaigns.
  - Other DOE organizations.

- Enhance the TEC website.
  - Archived topic group materials and presentations should be more readily accessible;
  - Summaries of meetings with action items need to be added to the website more expediently;
  - Make more current/more draft documents; and
  - Consider use of a non-public area with password protection for file sharing and drafts.

At the conclusion of the sessions, Mr. Thrower indicated the groups' recommendations, which had been recorded on flip charts, would be collected, summarized, and distributed to the participants for their consideration. He also indicated the summary would provide DOE responses to each recommendation, as well as action items, where appropriate.

Path Forward and Summary

Topic Group leads presented brief summaries of their respective discussions. Alex Thrower summarized the Rail and Routing Topic Groups. Dan King covered the Tribal Topic Group discussions and presented a list of action items.

Summaries of the breakout sessions were also presented. Bill Spurgeon provided a summary of EM issues related to upcoming and ongoing shipment campaigns. John Smegal (Legin Group) summarized the input received during the TEC Direction and Priorities session. Frank Moussa provided information on issues related to the OCRWM program, including ideas received on Section 180(c), improving communications, and a path forward for the NTP.

Mr. Moussa closed the meeting by thanking the attendees and presenters. He indicated DOE could not commit to a second TEC meeting during 2008 because of the uncertainty over the budget.

The meeting was adjourned.