TEC Rail Topic Group

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

March 14-15, 2006

Participants: Kevin Blackwell (DOT/FRA), Bill Burgel (HDR Engineering), Sandy Covi (UP), Anne deLain Clark (WGA), Earl Easton (NRC), Pat Edwards (NE Task Force), Ray English (DOE, Naval Nuclear Propulsion Program), Atef Elzeftawy (Las Vegas Paiute Tribe), Scott Field (WIEB), Bob Fronczak (AAR), Bob Fry (NCSL), Bob Halstead (Nevada Agency for Nuclear Projects), Paul Johnson (ORNL), Jay Jones (DOE), Marsha Keister (INL), Angela Kordyak (DOE, Office of General Counsel), Gary Lanthrum (DOE), Adam Levin (Exelon), Mel Massaro (DOT/FRA), Michael Mulhare (NE Task Force), Doug Osborn (SNL), Ellen Ott (DOE, Office of General Counsel), Scott Palmer (BLET), Rich Pinney (NE Task Force), Cort Richardson (NE Project), Tim Runyon (CSG/MW), Marty Vyenielo (NE Task Force), Chris Wells (SSEB), Tad Williams (Walker River Paiute Tribe), and Sarah Wochos (CSG/MW).

DOE support contractors also participated.

RAIL TOPIC GROUP

Jay Jones welcomed participants and asked them to introduce themselves. He reviewed the agenda for the meeting and added three more items – an update from Paul Johnson (Oak Ridge National Lab) on TRAGIS, an update from Doug Osborn (Sandia National Lab) on RADTRAN, and an update from Kevin Blackwell on the Federal Railroad Administration's (FRA) Safety Compliance Oversight Plan.

Since the last TEC meeting in September 2006, the Rail Group has formed six subgroups. Currently, the Rail Topic Group holds conference calls every two months. The subgroups hold calls on a monthly basis, or as necessary, and report back to the full Rail Topic Group. Subgroups are encouraged to develop their own workplans and schedules. Once the subgroups have submitted their products, the Rail Topic Group reviews them. The subgroups and their team leaders are as follows:

- Inspections Subgroup -- Leads: Tim Runyon and Carlisle Smith
- Tracking and Radiation Monitoring Subgroup -- Leads: Sarah Wochos and Bill Mackie
- Planning Subgroup -- Leads: Ken Niles and Lisa Janairo
- Legal Weight Truck Shipments Subgroup -- Lead: Bob Halstead (on hold until further discussion)
- Lessons Learned Subgroup -- Lead: Jane Beetem

- TRAGIS Subgroup -- Leads: Sarah Wochos and Paul Johnson (on hold until system updates are completed)

Inspections Subgroup Update

Tim Runyon (CSG) stated that this has been a fairly contentious topic. The subgroup has had two conference calls and has developed a scope of work. On the first conference call, the subgroup identified four areas to pursue:

- Work jointly with FRA, Association of American Railroads (AAR) and individual railroad companies to develop rail inspection criteria and standards that may be parallel to a Commercial Vehicle Safety Alliance (CVSA) level standard;
- Take the criteria as well as route studies and identify where inspections could take place;
- Research the potential technology currently available (e.g., remote sensing) that would aid in reducing the number of inspections; and
- Identify potential financial assistance to Tribes.

The subgroup's second conference call included more discussion of how inspections are conducted. The subgroup plans to use CVSA and rail inspection comparisons to help identify the components necessary for Yucca Mountain shipment inspections. A participant suggested that the subgroup form writing groups, while another felt that they were not quite ready to take that step. The next conference call for the Inspections subgroup is March 27, 2006.

Comments and Questions

A participant commented that he was surprised that the Lessons Learned subgroup has not started, since there was a whole list of documents available from West Valley. He also asked if there should be a separate subgroup for Radiation Monitoring. Jay Jones stated that there is an overlap between subgroups.

A participant stated that Nevada would likely require every incoming train, railcar, and cask receive port of entry inspections for radiological material. If Caliente is the entry-point, then it is a long journey within the state of Nevada and there may be the need for additional inspections at each shipping site. Another participant commented that the S-2043 AAR standard deals with maintenance of on board detection equipment. He also noted that there are not "welcome stations" at each state border for inspections.

A participant observed that he does not want canisters going through Native American land without an agreement in place. It is imperative for the Federal government that the sovereignty of the Tribes not be compromised. A representative of the FRA commented that from a safety standpoint, FRA will be looking into whether any

rulemaking will be needed. The S-2043 standard will affect this decision by FRA. A participant commented that 49 CFR is the official standard for inspections and CVSA provides an extra set of requirements to be considered. He also views the inspection standard for Illinois as allowing the State to inspect anywhere within the State's borders.

Another participant noted that rail crews have twelve hour shifts and can only do what they can during those twelve hours. A second participant observed that because of the shift limit, Arizona would probably wait until the usual crew change point to schedule inspections. He added that a lot of inspections can be done with remote sensing. Arizona is more concerned with the mechanical safety of the train. A third participant commented that Pennsylvania would be happy with a similar system to CVSA for radiological material. Several participants commented that one of the purposes of the CVSA standard is to have reciprocity between states for inspections. This allows inspections to be done at the most logical point, not necessarily at the state line.

Tracking and Radiation Monitoring Subgroup

Sarah Wochos (CSG) gave the update report for this subgroup, which has grown from five to ten members. The subgroup has reviewed lessons learned and different technologies. This subgroup will ultimately be recommending to DOE what the stakeholders would require from a tracking system. She stated that the subgroup will be receiving input from stakeholders via the Security Topic Group state survey. After the subgroup receives this input, AAR and rail industry input will be included in their recommendations. She commented that they would like to submit their recommendations to the Rail Topic Group by the next TEC meeting.

The subgroup has not started reviewing technologies for radiation monitoring. The subgroup would like to first receive input from the states via the Security Topic Group survey. The subgroup is planning to have another conference call in two weeks.

Comments and Questions

A participant observed that there are already simple radiation detection and satellite tracking systems available. He volunteered to have the subgroup examine his personal vehicle that is equipped with these systems. Gary Lanthrum commented that it is important to integrate these systems before they are brought forward to the larger Topic Group and TEC. He emphasized that it is also important to do a cross-cutting technology review.

Another participant mentioned that at the last TRANSCOM users group meeting, there was a group comprised of representative from DOE, DOT, NRC, and DHS who were looking at radiation monitoring. He suggested that this subgroup may want to have a state regional group representative on this intergovernmental group. Participants noted that the Security Topic Group is also looking at radiation monitoring. A participant asked if the Rail Topic Group could receive a report from the intergovernmental group.

Cort Richardson responded that it was his understanding that the intergovernmental group was composed of very senior level officials, so he was uncertain if they would report out to the TEC; however, he noted that the contact person for DOE on this group was Casey Gadbury.

Rail Planning Subgroup

Since Ken Niles was unable to attend the meeting, Anne deLain Clark (WGA) presented the update report for this subgroup. This subgroup has drafted a rail planning timeline. The subgroup was unable to find a comprehensive timeline previously created by FRA, rail road industry, or states. The subgroup would like the Rail Topic Group to review the timeline and send comments via e-mail to Ken Niles or Lisa Janairo by March 24, 2006. The next conference call for this subgroup will be open for any of the Rail Topic Group members to discuss their comments on this timeline.

Comments and Questions

A participant commented that he was unsure of the port of origin of inspections currently being done. He also asked what this subgroup envisions being done concerning inspections. As a utility representative, he registered concerns over whether this timeline favors an increase in the number of inspections and whether these inspections are to be done within the fenceline. He commented that if the number of organizations increases for inspections, this would be difficult for utilities to comply with due to security concerns. A second participant commented that from the rail standpoint, there is usually one DOT HAZMAT inspector and one mechanical inspector at the point or origin for SNF shipments. A commenter suggested that utility representatives may want to contact individuals involved with West Valley or Concord shipments to get an idea of how inspections were conducted. Another participant stated that the Bureau of Indian Affairs should be represented in these inspection areas.

Legal Weight Truck (LWT) Shipments Subgroup

Jay Jones stated that there have been internal discussions about whether this subgroup should continue. The general consensus was that the issues that this subgroup would address have already been adequately addressed in the EIS and will be addressed in the other subgroups. One option for this subgroup would be to have the activities that were planned for this subgroup to be divided among the other subgroups as appropriate.

Bob Halstead (Nevada) provided the update report on this subgroup. The subgroup has had no conference calls partly due to the issue of whether this subgroup will continue as constituted. In addition he stated that the lawsuit Nevada has against DOE involves an issue concerning the supplemental analysis proposing LWT to Yucca Mountain since Yucca Mountain currently has no rail access. In addition, he stated that another issue for this subgroup could be to examine intermodal transport. Twenty-four shipping sites do not have rail transport capability accounting for about 30 percent of the nuclear power plant sites. Mr. Halstead stated there are several reasons that LWT is a

contentious issue. First, Yucca Mountain has no rail access and achieving rail access would be difficult and costly. Second, the town of Caliente, lobbied for an intermodal facility within Lincoln County. Third, LWT is only a subset for the larger issue of inter-modalism. This could be a potential shipping problem for more than 20 reactor sites. There could be 40 trucking shipments a year through the same states that also will have rail shipments on a weekly and/or monthly basis.

Comments and Questions

A participant asked what would be the product for this subgroup. Mr. Halstead responded that the product would be a report to other subgroups. He also added that peculiar safety issues could arise from the subgroup's research, such as if there are smaller casks that could potentially pose a greater safety issue. The participant commented that the NRC is still working on the smaller cask safety issue. Accident reviews have been done and no evidence shows that a smaller cask would have higher safety risks. The more intense accident fires have happened in tunnels such as the Baltimore tunnel incident. He commented that tunnels act like an oven and can increase the intensity of a fire.

Another participant commented that most of the spent nuclear material from utilities would be in dry cask storage and there would be very few if any truck casks used for spent nuclear material. In addition, all the casks would be rail compatible. The trend across the utility industry is to have more dry cask storage. Judith Holm stated that this discussion was taking on a more logistics and operations focus, which should be limited to a separate forum. A participant commented that the key is to balance the overall risk for operational control of SNF. No decision was made by the Topic Group as to whether the LWT subgroup should continue.

Lessons Learned Subgroup

Jane Beetem (Missouri Department of Natural Resources) gave the update for this subgroup. The focus of this subgroup has been compiling existing documents. Most of the documents thus far have been from West Valley. She would like to have a more balanced report and asked the Topic Group members to forward to her any documents they may have that are lessons-learned related.

TRAGIS Subgroup

Jay Jones briefly stated that this subgroup is on hold until system updates are completed. The original intent of this subgroup was to do data runs of train shipments from five different geographic areas to Yucca Mountain. In addition, there may also be a table-top exercise using TRAGIS that the Rail Topic Group could convene. The subgroup may be activated by the next TEC meeting.

Midwest Route Identification Project

Sarah Wochos presented an overview of the CSG/MW's Route Identification Project. The CSG/MW has been working on this project for the last two years. The project work was delegated to a smaller workgroup from the Midwest region. The approach was regional because the states believed they would have a better indication of which routes could be used during the campaign. The goal was to develop a suite of highway and rail routes throughout the region that the Midwestern states found acceptable as the starting point for the national route identification discussion. Originally, CSG/MW thought all the regions would conduct route identification projects. However, the Northeast is still in the beginning stages of their route identification project and the West and the South have chosen not to pursue the project and instead will wait for DOE to propose routes.

The methodology for this project was based on primary factors from US DOT's *Guidelines for Selecting Preferred Highway Routes for Highway Controlled Shipments of Radioactive Materials.* The primary factors are divided into three areas: 1) risk to the public during normal transport; 2) risk to the public in the event of an accidental release; and 3) the economic risk to the area in the event of an accidental release. The workgroup for this project decided to weight each of these factors equally in the analysis and use the factors for both highway and rail routes.

Secondary factors were used to evaluate routes if comparison using the primary factors did not distinguish a clear preference. These factors were developed by the workgroup and weighted according to Midwestern policy. These factors included urban areas traversed, accident rates along the route, road or track quality, and traffic density along the route. One of the factors not included was time in transit since this factor was included in each of the primary factors with the use of length and speed variables.

Potential routes were generated using TRAGIS. All reasonable routes were included in the analysis. Routes that directed shipments eastward, far to the north or far south were not included. In addition, judgments were made to exclude routes that had excessive carrier changes and therefore seemed operationally undesirable.

The results from this analysis produced a suite of routes that met regional criteria for ensuring the selection of safer routes. These routes are not "accepted" or "preferred" routes, and do not necessarily reflect the routes that DOE will ultimately use nationally. The CSG/MW hopes that the suite of routes will be a primary input into the development of the national suite of routes, along with other stakeholder input and operational considerations.

Comments and Questions

A participant asked if the CSG/MW compared the Midwest routes with the EIS routes. Ms. Wochos replied that they did not compare the routes. A second participant asked for a clarification on the use of "preferred routes." Ms. Wochos responded that these routes are preferred starting points for discussion and they are not "preferred

routes." Another participant asked how the interchanges looked along the Midwest routes. Ms. Wochos replied that most routes only had one interchange.

Northeast Routing Project Update

Cort Richardson (CSG) gave an update on the Northeast's routing project. There has been much discussion about conducting this project for the northeast, and at their December meeting, the CSG/NE decided to pursue this effort more seriously. This routing project will be similar in approach to the Midwest's routing project. The goal is to have a completed product by the end of the fiscal year.

TRAGIS Update

Paul Johnson (Oak Ridge National Lab) reported that he is in the process of a large update on the rail network. The new version of TRAGIS will be available before the end of the fiscal year. FRA's Office of Safety is funding additional upgrades to TRAGIS, including a routing and visualization application that identifies accident and inspection locations. He is in the process of intersecting data files with routes and enhancing the GIS capabilities for TRAGIS. He also mentioned that there will be TRAGIS training for SSEB at the end of April.

A participant commented that he originally thought that the rail interchanges identified were connected, but they were not. This was an update to TRAGIS due to the Midwest's routing project and analysis. Mr. Johnson replied that he was open for to suggestions anyone might have to improve and/or enhance TRAGIS.

RADTRAN Update

Doug Osborn reported that there are several enhancements to RADTRAN. The program now has the ability to import the web TRAGIS routing data. They are also currently working on version 5.6, which will have more graphical output and version 6.0 should be completed by the end of the fiscal year. The probabilistic risk assessment model has been completed and rail modules have been sent to the TEC Rail and Tribal Groups. He also mentioned that RADTRAN training sessions are offered at no cost.

FRA Safety Compliance Oversight Plan (SCOP)

Kevin Blackwell (FRA) gave a brief update on the SCOP. He indicated FRA is in the process of updating this document, which was last updated in 1998. The goal is to have it serve as a workable policy. This effort is being coordinated with the Rail Topic Group and the Planning subgroup. FRA anticipates having a final update proposal to FRA management by the end of FY 2006.

SECTION 180(C) TOPIC GROUP

Corinne Macaluso welcomed the attendees. She then gave an update on the two *Federal Register* notices pending at DOE regarding Section 180(c) and the proposed pilot program to test the Section 180(c) policy and implementation process. She did not have an anticipated publication date for the *Federal Register* notices; however, the Draft Policy and the Draft Grant Application Package were still undergoing management review. The proposed pilot program was delayed until 2007. The implementation of the pilot program will depend on funding for transportation institutional activities in the FY 2007 budget.

Ms. Macaluso introduced Reggie James from OCRWM's Office of Procurement, and Paula Walker and Matt Belleri from Booz, Allen and Hamilton, Inc. Ms. Walker and Mr. Belleri gave a presentation on how to use grants.gov and demonstrated the steps to register and then use grants.gov as a tool to apply for Federal funds.

Comments and Questions

A participant asked when the pilot is implemented who will be allowed to apply and what will the application process involve. Ms. Macaluso responded that the pilot has not been developed, and therefore any decisions regarding who could apply and the structure of the application process have not been made.

A participant requested that DOE send hard copies of the *Federal Register* notices and other materials to Tribal chairmen and councils. He also suggested DOE consider extending the comment period of *Federal Register* notices to accommodate Tribal input. Tribal governments often have smaller staffs than state government and have more bureaucracy, making responding to such notices more time-consuming. Ms. Macaluso indicated that she intended to send both electronic and hard copies. She also responded that if she received a written request to extend the comment period, DOE would likely accommodate that request.

Another participant asked if paper grant applications would be acceptable under the Section 180(c) program. Mr. James indicated that DOE would no longer be accepting paper applications by the time Section 180(c) grants become available. The participant asked if the registration process for grants.gov negate the governor's designation of the appropriate state agency to apply for Section 180(c) grants. Ms. Macaluso indicated that nothing within the grants.gov process changes the process agreed to through the Topic Group's work.

A participant raised the issue of security measures. Mr. James answered that his office verifies DUNS numbers and the CCR number of a submitter's agency before responding to an application. These measures allow DOE to know if any unauthorized users have accessed the system. Another participant suggested that their experience with the Department of Homeland Security grants program suggests that the grants.gov system does not work. He indicated that there are conflicts when registrants are in districts with overlapping jurisdictions within county governments. The registration process cannot accommodate the overlapping information. Mr. Elgin Usrey (State of Tennessee)

responded that, in this case, the grants only go to the state and Tribal level so that wouldn’t be a problem for Section 180(c).