

## **TRANSPORTATION WORKING GROUP (TWG) MEETING**

State of Nevada Grant Sawyer Building  
4th Floor Conference Room 4412  
555 E. Washington Avenue, Las Vegas, NV 89101  
November 14, 2011, at 1 p.m.

TWG Mission – Provide a forum for information exchange for the Site-Wide Environmental Impact Statement (SWEIS) analysis of low-level and mixed low-level radioactive waste transportation to the Nevada National Security Site (NNSS), formerly known as the Nevada Test Site.

Present:

Marta Adams, Nevada Attorney General Office (Video Conferencing)

Richard Arnold, Tribal Representative

Kathy Bienenstein, Nevada Site Specific Advisory Board

Linda Cohn, National Nuclear Security Administration Nevada Site Office (NNSA/NSO)

Frank Di Sanza, NNSA/NSO (Panelist)

Hanne Epstein, State of Nevada Division of Emergency Management

Bob Halstead, Nevada Agency for Nuclear Projects (Panelist)

Cash Jaszczak, Nye County Nuclear Waste Repository Project Office

Peggy Maze Johnson, Citizen Alert/Clark County Nuclear Waste Advisory Committee

Phil Klevorick, Clark County

Jeff McDougall, State of Nevada Division of Environmental Protection (Telephone)

Gene Pasinski, Clark County

John Runiks, City of North Las Vegas,

Cheng Shih, City of Las Vegas

Mike Skougard, Potomac Hudson Engineering (PHE)

Kelly Snyder, NNSA/NSO

Joe Strolin, Nevada Agency for Nuclear Projects (Video Conferencing)

Barb Ulmer, Navarro-Intera

Scott Wade, Assistant Manager for Environmental Management (AMEM), NNSA/NSO

Mike West, PHE

## 1. Opening Remarks/Introductions

Frank Di Sanza called the meeting to order at 1 p.m. by welcoming everyone.

Meeting attendees introduced themselves and their agencies.

Reminder: the U.S. Department of Energy (DOE), NNSA/NSO extended the public comment period for the Draft SWEIS from October 27 to December 2, 2011.

Frank Di Sanza and Nohemi Brewer, Transportation Manager for NNSA/NSO, traveled to California on November 10 to meet with Barbara Byron and her staff from the California Energy Commission. Their discussion focused on low-level waste issues, transportation, and the Draft SWEIS.

Frank and Nohemi returned from this meeting with three primary follow-up items:

- 1) The Carlsbad Field Office is ending its grant program for the training of first responders along the I-5 corridor. Since the Nevada Site Office encourages shippers to utilize the I-5 corridor, Scott Wade, AMEM, NNSA/NSO; Headquarters; and the Carlsbad Field Office will work together to look into ways to continue this grant program.
- 2) The Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico, has provided California a description of waste streams that are being currently transported on California roads. California requested that same information for low-level waste.
- 3) The Hazardous Materials Notification System (HAZTRAK) documents all hazardous waste shipments to the NNSS. In the case of an incident, first responders can respond appropriately with this information. Frank Di Sanza will be looking at the possibility of getting California access to HAZTRAK.

## 2. Panel Discussion

Panelists:

- Bob Halstead, State of Nevada Agency for Nuclear Projects
- Frank Di Sanza, NNSA/NSO

Each panel member asked the other member five questions (documented below). These questions/answers will be made available to the TWG for preparing a final document their organizations may use to make formal comments on the Draft SWEIS.

Frank Di Sanza started the discussion by asking Bob Halstead five questions:

**Question 1:** Why is it not acceptable for DOE to just make Department of Transportation (DOT) compliant shipments of low-level waste (LLW) to the NNSS?

### **Response to Question #1 (Halstead):**

(The following is from Mr. Halstead's written responses) The State of Nevada believes that DOE should terminate any further consideration of the "unconstrained" routing scenarios proposed in the NNSS Draft SWEIS (DOE EIS-0046-D), and terminate any further consideration of intermodal (rail to truck) options that would result in any shipments through the Las Vegas Valley. The mere fact that DOE has proposed ending the agreement between DOE and Nevada that prohibits shipments through Las Vegas has already damaged the trust and confidence built up during the past 12 years of successful operations under that agreement. Continued discussion of "unconstrained" routing and intermodal shipments through the Las Vegas metropolitan area can only adversely impact the more important discussion of the future of the NNSS, which is the overall objective of the Draft SWEIS.

For this reason alone, it is not acceptable to the State of Nevada for DOE to “just make DOT compliant shipments of LLW to the NNSS.”

Moreover, our review of DOE EIS-0046-D leads us to the following preliminary conclusions:

- a. The proposed “unconstrained” routing scenarios, coupled with the proposed increase in shipments, will increase accident risks sabotage, and terrorism risks, and perceived risk impacts.
- b. The proposed intermodal options, coupled with the proposed increase in shipments, will increase accident risks, sabotage and terrorism risks, and perceived risk impacts.
- c. The Draft SWEIS does not sufficiently evaluate the radiological impacts of LLW and MLLW accidents-major deficiencies include the assessment of radionuclide inventories, package performance, release fractions, radionuclide dispersal, health effects, and economic impacts (especially cleanup costs and opportunity costs).
- d. The Draft SWEIS does not sufficiently evaluate the radiological impacts of acts of sabotage and terrorism against shipments to the NNSS.
- e. The Draft SWEIS does not sufficiently evaluate the unique local conditions along the potential transportation routes in Nevada; this is particularly the case in Clark County, where the Draft SWEIS fails to assess potential adverse impacts on iconic locations and venues, special events of national and international significance, highly populated areas, and critical local infrastructure located with one-half mile (800 meters) of the shipping routes which DOE proposes to use.
- f. The Draft SWEIS does not sufficiently evaluate the route-specific impacts (in Nevada, regionally, and nationally) of the proposed use of intermodal (rail to truck) transportation options.

**Di Sanza:** Even though DOE can ship DOT compliant shipments, am I to understand that agencies should take into consideration other parameters that are not in DOT regulations?

**Halstead:** It is not so clear that DOE can ship low-level waste through the Las Vegas Metropolitan Area and meet DOT requirements. Nevada has a commercial driver’s license hazardous material handbook. In this handbook, commercial drivers are required whenever their shipment is placarded to avoid heavily populated areas, crowds, tunnels, narrow streets, and alleys. This handbook also requires the carrier to choose the safest route to transport placarded radioactive material.

**Jaszczak:** In your opinion, are DOT rules insufficient and should DOE discontinue waste shipments until fixed?

**Halstead:** No, LLW is restricted by drivers complying with the handbook.

**Halstead:** An example would be a Type Package B shipment of Strontium 90, would not be compliant through the city centers area.

**Maze Johnson:** I understand that Hanford containers are leaking, are these containers safe?

**Di Sanza:** First of all, there are not any planned shipments from the Hanford Site to the NNSS. In the situation where a container was suspect, the DOE would require that the containers be overpacked.

**Question 2:** What is perceived risk? What is the perceived risk associated with shipment of low-level waste through the Las Vegas Valley? How is perceived risk managed? Who is responsible for managing perceived risk?

**Response to Question #2 (Halstead):**

(The following is from Mr. Halstead's written responses) In our experience, the general public tends to view all radioactive materials shipments as dangerous, especially waste shipments, regardless of regulatory classification. Indicators of perceived risk include fear of adverse health effects from very low exposures, or even no actual exposures; fear of accidents and terrorism, even if no such incidents occur; fear of property value losses near shipping routes; and fear of adverse impacts on the local economy. Perceived risk also includes long-term stigma impacts which could occur in the aftermath of an accident or incident, and negative associations created by a long-term shipping campaign even if no accidents or incidents occur.

Public perception of radioactive materials transportation risks is complicated in Nevada by the past 25 years of controversy over Yucca Mountain shipments, and specifically by concern in southern Nevada about high-level nuclear waste shipments to Yucca Mountain through Las Vegas by truck and by rail. DOE identified such routes (I-15, I-215, and US 95 for trucks; and the Union Pacific mainline between Arden and Apex for rail) in the 2002 Final SWEIS and 2008 Supplemental SWEIS. These are precisely the routes that DOE proposes to use, along with the I-15/US 95 interchange, for LLW and MLLW shipments under the "unconstrained" routing and intermodal options identified in the NNS Draft SWEIS.

To the extent that perceived risk can be managed, as in the case of DOE transuranic waste shipments to WIPP, it has done by selecting routes that avoid highly populated areas, and by following extra-regulatory safety and security protocols developed in close cooperation with, and publically endorsed by, the affected states, state regional groups such as the Western Governors Association, and affected Indian tribes. The National Academy of Sciences (NAS) 2006 report, Going the Distance, provides a comprehensive review of transportation risks and risk management. The NAS recommends adoption of the WIPP transportation model, plus additional measures for managing the social impacts of spent fuel and high-level waste shipments, including creation of a social science advisory group. Under the approach recommended by the NAS, DOE as the shipper of radioactive materials and the manager of the received facility is responsible for managing perceived risk. The current agreement between DOE and Nevada is an example of the type of social risk management recommended by the National Academy of Sciences.

**Di Sanza:** Why aren't local or state governments responsible for managing the perceived risk?

**Halstead:** The state is not making the shipments.

**Di Sanza:** If DOE was making a DOT compliant shipment, but there is a perceived risk by another local governmental agency, then wouldn't they be the owner of the perceived risk?

**Halstead:** In the past DOE has always worked with the stakeholders to manage perceived risk.

**Di Sanza:** If state or local governments managed the perceived risk, wouldn't it be better because they prepare emergency preparedness plans and train first responders.

**Klevorick:** Comment ~ it is more of an acceptable risk versus a perceived risk. For example, if first responders are well-trained for an incident, then there is a greater likelihood for survival. Take a perceived risk and turn it around and ask the question, "What is the acceptable risk?" DOE needs to ask what society is willing to accept.

**Strolin:** Déjà vu ~ between 1997-1999 leading up to the agreement between DOE and other governmental agencies, the issue was not so much dealing with fear but with the social amplification of risk. A minor incident can get amplified and have significant impacts on the economy. For example, a small incident on the strip can be socially amplified and have a detrimental impact on tourism. DOE needs to avoid areas of risk that are problematic.

**Question 3:** Although LLW shipments are normally not High Route Controlled Quantity (HRCQ) Shipments, DOE may be willing to use State of Nevada designated HRCQ Preferred Routes. Is the State of Nevada interested in designating HRCQ Preferred Routes? How would this process be initiated?

**Response to Question #3 (Halstead):**

(The following is from Mr. Halstead's written responses) The State of Nevada has no need to designate preferred routes for HRCQ shipments at the present time. Under current federal regulations (HM-164), state designation is a technically complex, time-consuming, and controversial process, as demonstrated by the experience in Colorado and New Mexico. Moreover, formal designation of preferred alternative routes would have no relevance for LLW and MLLW shipments, since these are not HRCQ materials, DOE would be under no obligation to adhere to such routes.

**Question 4:** What are the barriers to using rail to truck transfers at Arden, Valley, or Caliente?

**Response to Question #4 (Halstead):**

(The following is from Mr. Halstead's written responses) The State of Nevada opposes rail shipments of LLW and MLLW through Las Vegas on the Union Pacific mainline between Arden and Valley. Even in the case of Caliente, DOE may not be able to require the railroad to avoid shipping through Las Vegas. Intermodal operations at Arden or Valley would not reduce the number of truck shipments through the Las Vegas metropolitan area. Indeed, if intermodal operations were allowed, it might encourage DOE to increase the amount of LLW and MLLW shipped to NNSS, thus resulting in increased truck shipments through the Las Vegas Valley. Intermodal operations at Arden would not necessarily reduce the number of shipments using SR 160, and might result in more shipments on SR 160. The intermodal operations themselves would be controversial anywhere in the Las Vegas valley. The perceived risk issues associated with intermodal operations or LLW and MLLW are complicated by DOE Office of Civilian Radioactive Waste Management's previous consideration of intermodal operations for spent nuclear fuel and high-level radioactive waste shipments to Yucca Mountain from locations in and near Las Vegas.

**Klevatorick:** Where is the Valley site?

**Di Sanza:** It is a bona fide intermodal site in North Las Vegas.

**Klevatorick:** Why Caliente for a proposed intermodal site?

**Di Sanza:** Caliente representatives expressed interest at a TWG meeting.

**Wade:** DOE is looking at various routes and intermodal sites and the options and representative locations that are available. That is the reason for the inclusion of the Arden and Apex Site. Representative locations are not actual locations.

If there is interest, Frank Di Sanza offered to set up a tour of the Valley Site with a Union Pacific representative.

**Klevatorick:** Clark County would not be in support for a new intermodal site. There would be no benefit since there would be the same number of shipments in Nevada. If the overall goal is to reduce the carbon footprint, it would be a reduction of greenhouse gases for the rest of the counties but not for Clark County, since the trucks and trains would be idling while waiting for a shipment (air quality issues). Clark County has concerns for the security of the intermodal sites that is not included in the Draft SWEIS. How will security and the terrorism risk be handled? Recommend putting the risk in smaller communities where it is acceptable.

**Question 5:** At the November 2 TWG meeting, you outlined five (5) SWEIS/Transportation Analysis issues that DOE should address. Please provide more details regarding these issues.

**Response to Question #5 (Halstead):**

(The following is from Mr. Halstead's written responses) The State of Nevada will provide detailed comments on the SWEIS transportation impact analyses to DOE by December 2, 2011. We provided the following elaboration on our comments at the November 2 TWG meeting by e-mail:

Comments:

- 1) State of Nevada strongly supports continuation of constrained case routing
- 2) Regarding GTCC, State has submitted detailed comments on DOE DEIS-0375-D
- 3) Recommend a broad approach at looking at the infrastructure needs/solutions/alternatives

Recommendations:

- 1) Need to have a good handle on the potential range of wastes(LLW/MLLW) and other RAMs, and modes of shipments, to determine maximum and minimum number of shipments annually and over a 10 year period
- 2) More precise understanding of maximum radionuclides in shipments(e.g., how representative are the values provided in Tables E-5, E-6, E-7, E-8, &E-9, Appendix E of the Draft SWEIS); great concern about certain radionuclides, such as Strontium-90; need risk informed analyses based on more precise radionuclide inventories
- 3) Transportation accident issues go beyond release fraction assumptions that DOE uses for Type A packages based on the DOE Handbook 1994 (see discussion at DEIS Pp. E-33 to E-57); performance of Type A packages in severe rail accidents a particular concern
- 4) There are unique local conditions that need to be taken account, i.e. population, economic activity, and building types, in assessment of transportation impacts; State to use own GIS data analyses to assess impacts with ½-1 mile (800-1600 meters) of transportation routes
- 5) Look at limits of the DOE models ~ RISKIND and RADTRAN; RISKIND model allows use of local data
- 6) Most shipments in the Expanded Operations Alternative fall into categories of LLW, MLLW, GTCC, but another category to look at is the shipment of nuclear weapons-8,200 shipments over the next 10 years

The panel discussion continued with Bob Halstead asking Frank Di Sanza the following five (5) questions:

**Question 1:** What decision process did DOE follow in developing the “unconstrained routing” and intermodal transportation options presented in DOE/EIS-0046D?

**Response to Question #1 (Di Sanza):**

As part of the National Environmental Protection Act (NEPA) process, DOE was required to undergo a transportation analysis. DOE underwent this process by utilizing the present routes under the constrained case, and adding additional new routes to formulate the unconstrained case, which was primarily driven by looking at a full range of alternatives.

**Question 2:** What cost data did DOE prepare or receive in the process of developing the “unconstrained routing” and intermodal transportation options presented in DOE/EIS-0046D?

**Response to Question #2 (Di Sanza):**

DOE did not prepare any cost data. Scott Wade and Frank Di Sanza did attend the 2010 Headquarters RadWaste Summit, an industry conference that addresses the challenge of radiation waste disposition. At this conference, they made contact with a representative from the rail community who questioned why there is not a rail to truck site near the NNSS, as there could be considerable costs savings that could be achieved using rail. That was a factor in analyzing intermodal options in the Draft SWEIS.

**Halstead:** Did the rail representative give you any detailed costs/benefits savings?

**Di Sanza:** No

**Halstead:** Comment ~ would put no confidence in this option until actual savings numbers could be fully documented.

**Wade:** This was a comparative analysis. DOE approached the SWEIS Team to analyze any reasonable alternatives as part of the Draft SWEIS.

**Halstead:** As there would be political controversy, would recommend not going forward until have a specific location and analyze to see if it would be economically feasible.

**Klevorick:** As a proposed alternative, Caliente was put on the table. Where would the proposed site be located?

**Di Sanza:** In the Record of Decision, transportation routing or intermodal sites will not be included. DOE will continue this dialogue with the State of Nevada until an agreement is reached. DOE will provide generators guidance in the NNSS Waste Acceptance Criteria and possibly provide boundaries on intermodal sites.

**Klevorick:** There is an application before the Surface Transportation Board for a railroad using Caliente as an intermodal site. Has DOE revamped interest in the Caliente site?

**Wade:** No, Caliente, if selected by industry, would be a rail to truck transfer location. There is no proposal for construction of rail to the NNSS.

**Strolin:** Concern ~ Caliente location does not assure that waste shipments will not go through metro Las Vegas; therefore does not solve the problem and the State would be opposed.

**Question 3:** In preparing the transportation impact assessment for DOE/EIS-0046D, did DOE give any specific consideration to unique local conditions (such as iconic locations and venues, special

events of national and international significance, highly populated residential and non-residential areas, and critical infrastructure, within 800 meters of potential shipping routes) in the metropolitan Las Vegas area?

**Response to Question #3 (Di Sanza):**

In regards to iconic locations, there was no special emphasis made during the transportation analyses. However, the transportation models took into account high population areas. The modeling was based on the 2000 Census data with escalations based on projections for current population. Upon availability, 2010 Census data may be analyzed. The models looked at the population density from within one-half mile from each direction of a transportation route.

**Halstead:** In regards to special economic conditions, the State will include in their comments. In regards to Census date, the State can provide data comparisons

**Klevorick:** Clark County has a population analyst on staff and would be willing to provide DOE with additional assistance.

**Shih:** Does RadTran6 and RISKIND models take into account the typography of an area?

**Mike West:** Typography is not taken into account in the models, but may be included in the Final SWEIS.

**Question 4:** In preparing the transportation impact assessment for DOE/EIS-0046D, did DOE give any specific consideration to the performance of Type A shipping containers in very severe railroad accidents?

**Response to Question #4 (Di Sanza):**

No, in a past presentation to the TWG, photographs and videos were shown of a large container transloaded from a railroad car to a truck flatbed in 60 seconds, in which a Type A container was used. In these instances, there are no liquids or the waste has been construct debris.

**Halstead:** Concern ~ Type A containers represent one type of risk by truck and another type of risk by rail. State will identify concerns in its comments on the Draft SWEIS.

**Question 5:** In the event of a transportation accident resulting in release of radioactive materials, who is liable for economic damages? Is there a cap (maximum amount) on economic damages? Are liability provisions different for shipments of nuclear weapons and components?

**Response to Question #5 (Di Sanza):**

In clarification, nuclear weapons and their components are shipped by DOE or the Department of Defense; therefore the liability is with the Federal government. Under the Price-Anderson Act, the liability cap for DOE contractors is \$10 billion.

**Maze Johnson:** In excess of the \$10 billion, where would the liability fall?

**Halstead:** The NRC would declare an extraordinary location event which would extend 2 layers of coverage: 1) private nuclear insurance, 2) the rest would be on an annual basis with an appropriation enacted through Congress.

**Strolin:** Price-Anderson Act may not apply to commercial waste.

**Di Sanza:** Price-Anderson, as it is amended, includes contractors, and in this case, it would be the generator. Frank Di Sanza will research further and get back to the TWG.

**3. Continue with Outline White Paper/Open Discussion**

Meeting summary from November 2 meeting will be posted to NSO website at

<http://www.nv.energy.gov/emprograms/transportationWG.aspx>

**Cohn:** Frank Di Sanza has done a wonderful job in providing leadership for the TWG. However, in regards to writing comments on behalf of the TWG, it would appear convoluted if a DOE employee is involved with the writing of a formal document or white paper for the DRAFT SWEIS.

**4. Closing Remarks/Path Forward**

There was a consensus among the TWG to focus on individual agency comments between now and the December 2, 2011, comment deadline.

Since Frank Di Sanza is retiring at the end of the year with 37 years of federal service, the TWG expressed interest in scheduling one more meeting in mid-December to reassemble and continue discussion on compiling a white paper. Beginning in 2012, Nohemi Brewer and Scott Wade will be available to meet and continue dialogue between DOE and the TWG.

Frank Di Sanza noted that if there is an interest, the TWG Contact List will be provided in order for members to share comments among each other.

The meeting adjourned at 3:20 p.m.