

## **Western Governors' Association WIPP Transport Safety Program 2006 Biennial Transport Evaluation Survey**

*Final, June 15, 2007*

The Western Governors' Association (WGA) WIPP Transport Program was established in 1988 to work collaboratively with the U.S. Department of Energy (DOE) to develop a comprehensive transportation safety program for the transport of transuranic waste to the Waste Isolation Pilot Plant (WIPP) in New Mexico. The WIPP Land Withdrawal Act requires DOE to work with the states through which the waste is shipped to maintain an effective transportation safety program. The program is designed to reduce the risk of a WIPP transportation incident and to increase the public's confidence in the safety of the WIPP shipments as well as other nuclear waste shipments.

Transuranic wastes are generated primarily during the research, development and production of nuclear weapons. The wastes consist of such things as laboratory clothing, tools, glove boxes, sludges and other materials, contaminated with small amounts of radioactive materials, such as plutonium and americium, and small amounts of hazardous chemicals.

The WIPP is an underground repository in southeastern New Mexico. It was mined 2,150 feet below the surface in an ancient salt formation.

A key element of the transportation safety program is regular evaluations to ensure the program's effectiveness and to identify and address areas needing improvement. Shipments to WIPP began in March 1999. The Western states completed their first program evaluation survey in November/December 2000, based on the first 115 shipments to the WIPP site through seven Western states. That evaluation strongly validated the WIPP Transport Safety Program. Various program elements were evaluated periodically since that time as issues were identified.

The second biennial transportation program evaluation was completed in April 2003, based on evaluations completed in late 2002. By that time, there had been approximately 1,200 shipments to WIPP. The third biennial program evaluation was conducted in January 2005, covering shipments occurring in 2003 and 2004.

This, the fourth biennial program evaluation, was begun in December 2006. The states of Arizona, California, Colorado, Idaho, Nebraska, Nevada, New Mexico, Oregon, Texas, Utah, Washington and Wyoming participated in the evaluation. As of March 12, 2007, DOE has completed 5,542 shipments through one or more of these states from eight sites.

The program evaluation assesses whether the program is meeting its stated objectives for the following elements of the program:

- High Quality Drivers and Carrier Compliance
- Independent Inspections
- Bad Weather and Road Conditions
- Safe Parking
- Advance Notice and Shipment Tracking
- Medical Preparedness
- Mutual Aid Agreements
- Emergency Response Plans and Procedures
- Emergency Responder Equipment
- Emergency Training and Exercises
- Public Information
- Routing
- Overall Transportation Safety Program

## **Conclusions**

As with previous program evaluations, the 2006 program evaluation indicates that the Transport Safety Program continues to be a successful system for safely transporting transuranic waste to WIPP. Notable improvements during this most recent evaluated period include increased reliability of the TRANSCOM tracking system and improved accuracy with the 8-week rolling schedule. A few problems were identified in previous evaluations and have yet to be fully resolved, including the inequity in auditing of the WIPP carriers; routing issues related to shipments from the Nevada Test Site; and problems many states have in obtaining affordable equipment maintenance and calibration services.

The next complete program evaluation will be conducted in late 2008. Specific elements of the transportation safety program may be evaluated earlier, if problems or concerns are identified.

## **High Quality Drivers and Carrier Compliance**

**Objective:** Through stringent driver training requirements and carrier selection criteria, and through periodic audits by the host states, this element of the transport safety program ensures that only carriers and drivers of the highest caliber transport transuranic waste to WIPP.

### **Findings:**

In previous program evaluations, the states have consistently been satisfied with Colorado's audits of CAST, which now occur yearly. The states were not specifically asked during this evaluation about Colorado's audits, however, none of the states indicated any concern with the current audit process or results of the audit summaries.

- Many of the states believe there continues to be insufficient information received from DOE about Tri-State's performance, including the frequency of audits.
- Only minor issues were identified during Colorado's annual audits of CAST, and both CAST and DOE were receptive to addressing issues identified in the audits.

### **Meeting the Objective?**

This element of the WIPP transport safety program has **not completely met** the objective, since *independent* routine carrier audits have still not been performed on Tri-State. In addition, audit information provided by DOE to the states on Tri-State's performance has lacked detail.

### **Recommendations/Actions:**

- DOE must ensure that its WIPP carriers are treated equitably, and are subject to the same scrutiny through independent audits. This was an issue in the previous evaluations and has not been corrected.
- DOE should send to WGA for distribution to the states, detailed audit information from its audits of both Tri-State and CAST.

## **Independent Inspections**

**Objective:** A quality, independent inspection program assures that drivers and vehicles perform at optimal levels and that radiation levels are within allowable limits. The goal of the inspection is to identify and correct defects before they pose a threat to shipment safety.

### **Findings:**

Previous program evaluations identified that California, Colorado, Idaho, Nevada, New Mexico, and Washington currently inspect all WIPP shipments originating in their states.

Oregon inspects Hanford originating shipments about once a month. Idaho inspects the shipments originating in its state, but does not routinely inspect Hanford shipments. Utah inspects shipments on an annual basis. California, Wyoming and Arizona do not routinely inspect en route shipments. Nebraska inspects WIPP shipments when a violation is observed. Only a few states – by law – require inspections of WIPP shipments. In some cases, state policy or the directive of the Governor results in inspections.

- Only New Mexico has made significant changes in its inspection program since the last program evaluation. Previously, 100 percent of WIPP shipments passing through New Mexico's ports-of-entry (POEs) were inspected at Commercial Vehicle Safety Alliance (CVSA) Level VI. Beginning in January 2005, all HRCQ WIPP shipments and all WIPP shipments arriving alone are inspected at Level VI. For non-HRCQ shipments arriving at the POEs in groups, every fifth shipment is inspected at Level VI, and the rest are inspected at Level II with a radiological survey added.
- Two states, Arizona and New Mexico, report a shortage of inspectors available for WIPP shipments. New Mexico is in the process of training more inspectors.
- Two states indicate that they still have problems (Colorado reports frequent problems, New Mexico reports occasional problems) with inadequate lead time for schedule changes, so as to have an inspector ready at the correct time. Both say the problem is getting better.
- All the states agree there is sufficient CVSA training available.
- Idaho reports that they are working with the contractor for the ramp-up of remote-handled shipments, which leave from a different facility.
- Idaho still has concerns about the shipping schedule from Idaho National Laboratory (INL). Through its inspection program, the state supports shipments six days a week. Currently, no shipments leave on Wednesday. Idaho has requested that Sunday be the day no shipments leave the site but DOE has not agreed to that request.
- Washington agreed to an earlier inspection time during the winter so WIPP trucks will be able to cross into Idaho during the daylight. However, since the trucks arrive at Hanford just hours before departure, any repairs or delays result in a later inspection, and an inspector's time wasted.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. Equipment problems and defects are identified and corrected prior to departure. The en route inspections also identify and correct mechanical problems. No transportation incidents have occurred as a result of poorly maintained equipment.

### **Recommendations/Actions:**

- DOE needs to continue to support the CVSA inspector training program, so that the states are able to maintain an adequate number of trained inspectors.

- DOE needs to maintain the progress it has made in reducing last-minute schedule changes, which often result in inefficient use of the inspectors' time and results in the expenditure of unnecessary overtime.

## **Bad Weather and Road Conditions**

**Objective:** Bad weather can create hazardous travel conditions. Road and weather conditions must be carefully monitored so that WIPP shipments avoid bad weather and road conditions. Travel should be restricted when adverse conditions pose a threat to shipment safety.

### **Findings:**

Previous program evaluations identified that most states routinely check road and weather conditions prior to each shipment and pass information about hazardous conditions on to DOE. Most states also monitored road and weather conditions in front of each en route shipment, and passed pertinent information on to DOE.

- Two states – Idaho and Arizona – made significant changes in how they check road and weather conditions prior to each shipment. If there is a potential weather issue for shipments departing Idaho, DOE's Central Monitoring Room (CMR) must get concurrence from the Idaho State Police that the conditions are acceptable. Arizona has increased its contact with its state Department of Transportation and local weather watch.
- Five states – Idaho, Colorado, New Mexico, Oregon and Wyoming – questioned decisions to dispatch or continue shipments. All occurred during the winter with inclement weather. All but one of the issues were resolved – the one outstanding is still being discussed by DOE and the states.
- The states generally believe the current system is working well to keep WIPP trucks off the road when they should not be traveling because of bad weather or road conditions. However, there were suggestions made to improve communications and to evaluate the entire route so that trucks aren't frequently forced to park while en route.
- Washington suggested that DOE needs to revisit its policy about shipping during January and February, as weather conditions disrupt shipping schedules and are not conducive to an uneventful shipment.
- Washington also suggested that the CMR document its winter weather checks in a log. States should provide web links or other information sources that should be checked prior to and during shipments. Conditions observed through these information sources would be noted in the log.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. During the evaluation period, loaded shipments have generally not been on the roads during hazardous weather and road conditions. The departure of many shipments was delayed so as to avoid bad roads.

**Recommendations/Actions:**

- DOE should continue to carefully scrutinize road and weather conditions prior to dispatch and closely follow its procedures in making the decision as to whether or not to dispatch a shipment.
- The states should continue their check of road and weather conditions.
- DOE should document its winter weather checks in a log, if they are not already doing so, and have this information available at the states' request.

**Safe Parking**

**Objective:** Shipments may be delayed en route due to mechanical problems, bad weather or hazardous road conditions. Safe parking locations have been identified and criteria to select a safe parking location have also been developed for occasions when a truck is unable to reach a designated safe parking location.

**Findings:**

- Safe parking procedures were implemented in six states during the last two years and involved at least 14 shipments.
- Four of the states involved (Colorado, Idaho, Oregon and Wyoming) allowed the driver to determine where to park. One state (Texas) specifically recommended safe parking locations. New Mexico at times recommended safe parking locations and other times left it up to the drivers.
- Only once did a state disagree with a safe parking choice by a driver, when they used a truck stop in Colorado instead of a designated safe parking location.
- Colorado has designated safe parking in four locations along the I-25 corridor. If the driver can not get to the designated safe parking location they will contact the Colorado State Patrol for direction.
- New Mexico says that notifications were sometimes slow.
- Oregon had a concern with how one shipment was released from safe parking, without full consultation with the state.

**Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. Given that more than 2,000 shipments took place during the period covered by this evaluation, the fact that so few shipments required diversion to safe parking indicates that the decision on when to ship has generally been sound. When the need for safe parking has come up, the WIPP drivers have followed the procedures and parked in acceptable locations.

**Recommendations/Actions:**

- DOE needs to continue its practice of holding shipments at originating sites when weather and road conditions are marginal.
- DOE needs to communicate frequently with the states when trucks are entering or leaving safe parking.

## **Advance Notice and Shipment Tracking**

**Objective:** States need accurate, advance shipment schedules, a reliable method to track shipments en route, and the ability to communicate information indirectly to the drivers.

### **Findings:**

- All the states routinely reviewed the 8-week projected schedule.
- In previous program evaluations, there was considerable concern expressed about the reliability of the information contained in the 8-week schedule due to frequent changes. Ten of the states believe the reliability of the information has been improved.
- Several states had suggestions for how to improve the 8-week schedule. Idaho suggested that shipments should be listed by DOE site instead of mixing them. Oregon agreed that some method was needed to better distinguish shipments from the various sites, perhaps by color-coding. Utah and Washington both suggested that the information be put in a spreadsheet or database so that states could easily analyze and sort data. Washington added that perhaps it could be posted on a secure website.
- The reliability of the TRANSCOM system is much less of a concern than in past years.
- On those rare times that TRANSCOM was not working properly, backup procedures via telephone notification were usually but not always followed.

### **Meeting the Objective?**

This element of the transportation safety program has **completely met** the objective. Notable during the past two years are the increased reliability of TRANSCOM and the improved accuracy of the 8-week schedule.

### **Recommendations/Actions:**

- DOE needs to maintain the progress it has made in TRANSCOM reliability and the accuracy of the 8-week schedule.
- DOE should consider format changes in the 8-week schedule to make it easier to delineate shipments from various sites and to make it easier to identify changes from one schedule to the next.

## **Medical Preparedness**

**Objective:** An effective emergency medical response capability is necessary along WIPP routes. There must be a clear understanding of radiological response plans and procedures by emergency medical personnel in the field and at hospitals; adequate training; and necessary supplies and equipment.

**Findings:**

- Hospital training was available as needed and DOE was responsive to requests for medical training classes.
- Ten states have indicated the need for up to 52 in-hospital classes during the next two years.
- Last minute scheduling or cancellation of classes was not a recurring issue.

**Meeting the objective?**

This element of the transportation safety program has **completely met** the objective. Hospitals along the routes have radiological plans and training has generally been occurring as requested.

**Recommendations:**

- DOE must continue to make hospital training available for the indefinite future.

**Mutual Aid Agreements**

**Objective:** A WIPP Transport incident might occur near state borders or exceed state and local emergency response capabilities. State and local officials must be able to swiftly access needed emergency response resources, whether they are in an adjoining state or part of a federal agency.

**Findings:**

Previous program evaluations identified that those states that desire Mutual Aid Agreements with adjoining states generally have them.

- No states made any significant changes during the past two years in terms of mutual aid agreements with neighboring states or with DOE.
- California joined the Emergency Management Assistance Compact (EMAC). Many other Western states also belong to this compact.

**Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. For the most part, the states are satisfied with the mutual aid agreements they have in place or with their participation in EMAC.

**Recommendations/Actions:**

- None.



## **Emergency Response Plans and Procedures**

**Objective:** This element of the transport safety program includes development, implementation and maintenance of effective emergency response plans and procedures for responding to a shipment incident along the WIPP shipment routes.

### **Findings:**

Previous program evaluations identified that all states have response plans and procedures in place. Some plans are WIPP-specific or RAD-specific, while most are a part of the overall state HAZMAT plan. Tests of the plans and procedures through exercises generally resulted in affirmation of the plans. If problems were identified, corrections were made. No major deficiencies were reported.

- Two states – New Mexico and Texas – indicated significant changes to their plans and procedures during the past two years. New Mexico updated its training material to include information on secondary explosive devices and other diversionary tactics. The State of Texas revised its Emergency Notification and Response Guide for Transuranic Waste Shipments; the Internal WIPP SOP for Texas TRANSCOM Operations; and State and local Annex D - Radiological Protection. The changes were National Incident Management System (NIMS) related to get the state and local governments NIMS compliant.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. Plans are in place and are routinely updated.

### **Recommendations/Actions:**

- Each state should continue to update their emergency response plans.
- Each state should periodically test their emergency response plans and procedures.

## **Equipment**

**Objective:** This element of the transport safety program ensures that emergency responders have the specialized equipment necessary to respond to a WIPP shipment incident. In addition, the equipment must be properly maintained and responders trained in its use.

### **Findings:**

- Six states report significant changes in regards to their radiation detection equipment program:
  - Arizona purchased electronic dosimeters for all of its inspectors.
  - The California Governor's Office of Emergency Services (OES) created a new Calibration and Repair Plan for WIPP radiation instruments. OES provides radiation detection instruments to first responders along the routes in

California used for WIPP shipments. OES will calibrate and repair all instruments granted through the WIPP program at no expense to the responders. The transportation and calibration costs are covered by funds provided by the Western Governor's Association and the California Energy Commission through the WIPP contract.

- Nebraska has purchased additional equipment for emergency first response agencies along the transportation corridors. Nebraska's Legislature also passed legislation allowing the Nebraska Emergency Management Agency (NEMA) to charge a fee for the calibration of equipment. As vendors' calibration charges have soared, emergency first responder agencies can't afford to have it done. With the fees collected, NEMA is able to obtain additional training for the calibration technician and extra sources and equipment to conduct the calibrations.
- Oregon has begun to change out some of its older equipment. In addition, federal funds through Homeland Security resulted in major purchases of equipment through another state agency and by several local agencies
- Texas purchased radiological survey meters (Ludlum Emergency Response Kits - Model 2241-3) for seven Regional Liaison Officers (RLOs) along the WIPP route. RLOs have been trained in the use of the new equipment.
- The Washington State Patrol purchased 20 additional Ludlum 2212s for use by commercial vehicle inspectors at all Ports of Entry (two for each port) and selected enforcement officers not working at the Ports. They additionally purchased a large number of Personal Dosimeters which were eventually returned because most of the dosimeters were defective.
- Two states identified new equipment needs for remote-handled (RH) shipments. Arizona wants to provide electronic dosimeters for its State Port employees. New Mexico would like to acquire additional Personal Radiation Detectors. New Mexico would also like some consultation on the type of equipment most appropriate for inspecting RH shipments and casks. New Mexico would also like inspector training specific to RH shipments and casks.
- Three states identified other equipment needs that have not yet been addressed:
  - Colorado is getting requests for dosimetry.
  - Nebraska is looking to purchase two desktop computers for tracking TRANSCOM shipments and one laptop computer for conducting training.
  - Nevada says additional equipment is needed for training and equipping local responders along the proposed new shipping route between the Nevada Test Site (NTS) and INL. Plans are underway to obtain this equipment in the next six months. In addition, Nevada has identified a need for a reliable source/process of regular equipment calibration. DOE had provided such services in the past, but has since discontinued them. The State is attempting to establish a calibration program statewide that would include calibrating equipment used in the WIPP program.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. States have provided radiation detection equipment along the WIPP transport routes and maintain the equipment on a regular basis.

### **Recommendations/Actions:**

- DOE needs to maintain equipment support for the states, in accordance with the WIPP Land Withdrawal Act, for an indefinite period of time.
- DOE – as a major shipper of radioactive materials – should work with other federal agencies to try and provide additional equipment calibration/maintenance capabilities for the states.

### **Emergency Training and Exercises**

**Objective:** Emergency responders along the WIPP transport routes need sufficient training to allow them to respond quickly and effectively to an incident involving a WIPP shipment.

### **Findings:**

- All the states provide WIPP-specific training – either through the use of state resources, DOE's STEP trainers, or a combination of the two.
- At least seven states anticipate the need for additional DOE STEP training during the next two years.
- States were satisfied with the availability of DOE's STEP training.
- Several states have expressed the need for additional training.
  - STEP piloted a Medical Examiner Course in Colorado. The states expects to continue to have a need for a number of additional courses in the upcoming year.
  - Nebraska is working with DOE and its contractors to possibly put on a radiological transportation accident exercise in 2007.
  - New Mexico is looking for training in "Do's and Don'ts" for remote handled waste casks.
  - Nevada is working with DOE to identify and schedule training.
- Four states (Idaho, New Mexico, Texas and Washington) conducted WIPP-specific exercises or tabletops during the past two years. The response was positive. New Mexico's exercise focused in large part on Tribal related issues.
- Several states identified Lessons Learned to pass on to others:
  - Idaho learned that state personnel who routinely conduct WIPP inspections may be more familiar with the packaging, expected radiation readings, shipping papers, and protocols than the RAP team members.
  - New Mexico's exercise helped identify who has jurisdiction on tribal land during a non-federal disaster.
  - Texas learned that Incident Command System Training Provided by WIPP in advance of the exercise was very useful.

- At least eight states plan WIPP-specific exercises during the next two years. Assistance needed from DOE includes additional training, tabletop and field exercise planning assistance, WIPP truck and Radiological Assistance Program (RAP) team participation. Several states are still uncertain as to their specific needs.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. States and DOE have provided extensive training along the WIPP transport routes.

### **Recommendations/Actions:**

- DOE needs to maintain STEP training and WIPPTREX/TRAX exercise support for the indefinite future, in accordance with the WIPP Land Withdrawal Act.

## **Public Information**

**Objective:** Because of heightened public concern about the transport of radioactive materials, states must clearly communicate the actual risks of the WIPP shipments and explain the safety measures in place to the media and the public.

### **Findings:**

- States generally had sufficient public information materials available about the WIPP transport program to meet the inquiries received from the public and the media. There was dissatisfaction at the late development of fact sheets to support the beginning of remote-handled shipments.
- Most states would like some additional assistance with risk communication training for its Public Information Officer.
- Four states requested assistance from the Carlsbad Area Office's Public Information office during the past two years:
  - Colorado requested from WIPP a list of transportation accidents to date (May 2006) because of a conflict in data that a reporter had gotten from the WIPP Public Information Office versus correct information from the Colorado State Patrol. Apparently, no written list of accidents existed and had to be compiled from verbal input in order to get the data to the reporter. Later, when the reporter contacted the CSP, the CSP noted that the Colorado accident was missing from the list. As a result of the situation, Colorado requested that a final list of accidents be prepared and sent to Colorado. Colorado distributed the list within the state and to other western states, in order to meet any other public information needs that might arise.
  - Idaho requested assistance in response to two incidents involving WIPP truck crashes. Some assistance was received from DOE-Carlsbad and DOE-Idaho, although the Idaho State Police officer who served as Incident Commander

had better knowledge of the program. The incident helped recognize that the DOE-Idaho PIO's needed additional training.

- Texas requested training for a WIPPTREX. The Carlsbad Office sent an instructor with recording equipment (to simulate television interviews) and training materials and conducted a class. Texas considered it to be excellent training.
- Wyoming requested printed materials which were received in a timely manner.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. Shipments are occurring with little public concern expressed.

### **Recommendations/Actions:**

- DOE needs to provide continued support in Public Information Officer and Risk Communication training.

## **Routing**

**Objective:** WIPP shipments will travel on designated routes.

### **Findings:**

- WIPP trucks deviated from the designated WIPP route on at least three separate occasions.
  - While traveling in Colorado, a WIPP truck was directed by local police to follow a detour to avoid an accident in a road construction area. The detour took the truck into a residential area. The driver pulled over and contacted CMR to let them know they were off route. CMR then notified the Colorado State Patrol.
  - A new driver on a shipment from Los Alamos took a wrong turn and went through the city of Los Alamos, New Mexico, rather than using the truck route (the approved WIPP route). The truck route and the route through town run roughly parallel and are less than a mile apart, so the route deviation did not alarm with TRANSCOM. The routing problem from Los Alamos was resolved by DOE's making sure that all drivers are better informed as to the specific routes that are allowed and exactly how to get to those routes.
  - Hurricanes Katrina and Rita forced some route deviations through Texas. The state was consulted prior to the route deviations.
  - The Denver Police Department stopped a WIPP truck as part of a truck inspection program. The officer took the driver's Commercial Driver's License and directed him to follow the officer to the inspection point. The driver sent a message to CMR and mistakenly said he was being detoured by the Colorado State Patrol rather than the Denver police. The CMR – assuming the state was aware of the detour – did not notify the state. Once the

WIPP shipment arrived at the check point, another Denver officer advised the first officer that the truck should not have been taken off the route. The truck was then escorted back on route. Procedures have since been put in place at the CMR to notify State Police dispatch even in cases where the truck is under the direction of the State Patrol.

- There remain unresolved routing issues related to both California and Nevada.
- Routing of transuranic waste from NTS:
  - DOE is considering sending NTS waste to INL for characterization. This will require the opening of a new shipping route that will impact long distances in rural Nevada, as well as rural and urban (Salt Lake City) Utah. If the waste is not shipped to INL, DOE still needs to resolve routing issues between NTS and WIPP. California has not yet seen a route plan which does not involve California State Route 127, which was last used in November 2005. Under previous agreement between California, Nevada, and DOE, future shipments from NTS would not predominantly traverse California roadways.
- Routing of transuranic waste from Lawrence Livermore National Laboratory (LLNL):
  - DOE is considering sending transuranic waste from LLNL to INL instead of shipping waste directly from LLNL to WIPP. If that occurs, shipments would possibly transit northern California and northern Nevada via I-5 and I-80, requiring the opening of a new shipping route that would impact the Sacramento and Reno-Sparks metro areas as well as numerous other communities along both interstates.
  - Both states expect DOE to follow all WGA WIPP protocols in selecting and opening any new routes, including negotiating with affected states and providing training and assistance for local public safety personnel along the routes.
  - Nevada cautions that if the LLNL and NTS shipments to INL take place at the same time, that would put a major burden on Nevada's planning, preparatory, oversight and shipment operations resources - significant enough that shipments occurring simultaneously could prove untenable.

### **Meeting the Objective?**

This element of the WIPP transportation safety program appears to be **mostly meeting** the objective. While most shipments have stayed on designated routes, there have been a few instances of route deviations about which the states were not consulted. Routing issues still need to be resolved for the second round of NTS shipments and for LLNL shipments.

### **Recommendations/Actions:**

- DOE needs to ensure that its carriers follow the designated routes, and that if route deviations are necessary, that the states are consulted in advance.
- DOE needs to resolve the NTS and LLNL routing issues.

## **Overall Transport Safety Program**

**Objective:** Ensure the safe and uneventful transportation of transuranic waste through the Western States.

### **Findings:**

- States list the following as elements of the transport safety program not discussed in the previous questions that they particularly like and/or are working well:
  - New Mexico says the training programs and exercise assistance provided by WIPP are great, please continue.
  - New Mexico says its Motor Transport Division (MTD) uses a database called Safety Net which tracks all levels of inspections done, including Level VI. MTD officers also use Truck Enforcer, a computer program that helps carriers stay in compliance with the U.S. DOT highway hazardous materials transportation regulations.
  - New Mexico's MTD is in the process of purchasing a program called Thermo Integrated Safety and Security Enforcement System, which is able to conduct thermal imaging.
  - Oregon says we shouldn't lose track of the big picture – that it is a successful program and we're seeing a lot of shipments made safely and successfully.
  - Utah says overall the program is working well. The forum provided by WGA for the States to interact with each other and DOE to enhance the shipping program safety is very efficient and effective.
- Four states listed additional issues that are not working particularly well that were not discussed in the previous questions.
  - The State of California's lengthy and complicated contracting and billing procedures and rules, combined with DOE's/WGA providing funding to states in quarterly increments rather than in a lump sum, have resulted in significant problems for California's ability to fully use the funds allocated through the WGA contract. California's contracting, invoicing and purchasing procedures and rules cause a significant lag time between when the funds become available through WGA and when they can be used by the state. Each time WGA modifies the contract and provides a quarterly increment of funding, the Energy Commission must prepare three contract modification packages for contracts with the WGA, OES, and the California Highway Patrol which are then routed for approval. There is a lengthy approval process for each of these contract modifications resulting in delays before these additional funds can be spent. Invoicing for expenditures also is a lengthy process. California hopes to continue to work with WGA and DOE to find a solution to these problems.
  - New Mexico says that when calling the Central Monitoring Room for information regarding shipment status, they sometimes take too long to respond and do not always seem to be on top of delays or schedule changes.
  - Washington is concerned about how DOE defines a reportable incident.

- Wyoming is concerned about shipments that occur on federal holidays when there has been no prior coordination for permits. They are working with DOE to try and resolve this issue.
- Nearly all the states felt the level of funding during the past two years was adequate to meet their needs.
- Washington requests an additional \$300,000 over two years to install traffic cameras along the route in areas prone to high winds, poor visibility due to fog or blowing dust. This area is approximately 20 miles from the inspection site and without someone driving the route, hazards can't be determined. The cameras would be available for viewing on the internet. Due to the remoteness of the cameras they require a special transmitter to send the pictures.
- All states are satisfied with the support they have received from the Western Governors' Association on this project. One state did indicate that the delays by WGA in filling the Program Manager position was a concern.
- Most states say that DOE has generally been responsive to most state concerns. One state indicates that DOE is not always forthcoming with information. Another indicates that DOE is not always receptive to advice or suggestions from the states. One example came from discussions following the accident in Idaho where empty TRUPACTS came off the trailer. One state suggested placing reflective tape on each side and the tops and bottoms of the TRUPACT II containers so they would be visible to traffic in case a container came loose and landed on a dark roadway. The response from the DOE representative was that the changes would cost money and would not be practical. The other example was the TAG working group's suggestion that the TRUPACT III be subjected to full-scale burn tests. DOE never did respond directly to the perception issues raised by the states related to this request.

### **Meeting the Objective?**

This element of the WIPP transportation safety program has **completely met** the objective. More than 5,500 shipments have occurred relatively uneventfully.

### **Recommendations/Actions:**

- DOE and WGA need to work with California to try and resolve their funding/cash flow issues
- DOE needs to communicate relevant information with the states in a timely fashion.
- Washington, WGA and DOE should discuss Washington's request for additional funding for new road cameras.