

Transportation Security Unified Stakeholders Group Priority Committee 5

Priority 5 - "Review operational procedures and differences in how escorts are handled from state to state"

Coordinator - Karen Beckley (AS Program Director - NV)

Committee Members -

Artez Lester (Highway Patrol - FL)
Bill Ransohoff (Neutron Product - MD)
John Porter (State Police - LA)
Brandon Landrum (SLED/LE - SC)
Shaun Rooney (State Police - NY)
Waylon Sanford (EM/Homeland Security - MI)
Carlisle Smith (Commercial Vehicle Safety Alliance [CVSA] - OH)
Christopher Thompson (HP/LE - NC)
Cole Veinotte (Jade Transportation - Canada)
David Johnson (State Police - TN)
Donnie Lester (Tri-State Motor Transport Company - MO)
Erik Okvist (QSA Global - MA)
John Miller (International Isotopes Inc. - ID)
Brad Yates (State Police - LA)

ORNL/TSUSG Team support staff: Paul Gray, Mark Yeager, Jacqueline Shipwash, Brandon Stockwell and Kyle Mitchell

Introduction -

The Transportation Security Unified Stakeholders Group (TSUSG) Priority Committee 5 (PC5) included experienced representatives from all TSUSG member functional groups directly involved with ensuring the security of Co60, Ir192, Cs137 and Am241 Category 1 and Category 2 sources during transport operations in accordance with applicable provisions of 10 CFR Part 37. PC5, as stated, expanded from its initial focus on escort operational procedures. After initial findings indicated that escorts for Category 1 sources were not routinely conducted in a significant number of state jurisdictions, it was reviewed in further detail. Security incident scenarios were reviewed at several committee meetings to identify best practices for security incident response. When escorts are required for Category 1 sources, the committee's discussions included protection of shipment information; mitigating insider threats; effectiveness of coordination of escort activities domestically and at international borders; establishing temporary, incident-driven in-situ safe havens; using pre-determined safe havens; and security of licensed material during source transfer activities at the point of receipt.

Regulatory References –

§ 10 CFR 37.75 specifies that *“Each licensee that plans to transport, or deliver to a carrier for transport, licensed material that is a category 1 quantity of radioactive material” shall preplan and coordinate with the governor or the governor’s designee to “Identify safe havens”*.

§ 10 CFR 37.77 for advanced notification to the USNRC and the governor of a State or the governor’s designee *“of the shipment of licensed material in a category 1 quantity, through or across the boundary of the State, before the transport, or delivery to a carrier for transport of the licensed material outside the confines of the licensee’s facility or other place of use or storage”*.

§ 10 CFR 37.79 Requirements for physical protection of category 1 and category 2 quantities of radioactive material during shipment.

(a) Shipments by road. (1) Each licensee who transports, or delivers to a carrier for transport, in a single shipment, a category 1 quantity of radioactive material shall:

(i) Ensure that movement control centers are established that maintain position information from a remote location. These control centers must monitor shipments 24 hours a day, 7 days a week, and have the ability to communicate immediately, in an emergency, with the appropriate law enforcement agencies.

(ii) Ensure that redundant communications are established that allow the transport to contact the escort vehicle (when used) and movement control center at all times. Redundant communications may not be subject to the same interference factors as the primary communication.

(iii) Ensure that shipments are continuously and actively monitored by a telemetric position monitoring system or an alternative tracking system reporting to a movement control center. A movement control center must provide positive confirmation of the location, status, and control over the shipment. The movement control center must be prepared to promptly implement preplanned procedures in response to deviations from the authorized route or a notification of actual, attempted, or suspicious activities related to the theft, loss, or diversion of a shipment. These procedures will include, but not be limited to, the identification of and contact information for the appropriate Local Law Enforcement Agency (LLEA) along the shipment route.

Communications –

Advanced planning, transportation security plans and prior notifications of intended shipments of Category 1 quantities of sources are specified within applicable provisions of 10 CFR Part 37.

Communications while the shipment is in transit are essentially the same whether escorted or tracked telemetrically. The following observations and best practices were collected:

- In accordance with regulatory requirements, most states use a fusion center consisting of multiple agency response assets for tracking and notifications to and from the carrier of Category 1 shipments while travelling within their jurisdiction. In addition to the fusion center, the use of a one call incident response operator, or dedicated operations desk, trained to triage and route response assets to the specific type of hazmat incident and immediately channel the

information to the appropriate primary responder was recognized as an effective method to improve response time to a security incident.

- In one port of entry in a state's jurisdiction, Highway Route Control Quantities (HRCQ) shipments and other hazardous material commodities all have predesignated routes and have specific rules for notification during transport.
- In addition to ensuring that constant communication is maintained during tracking, some carriers require that the driver attempt to stop at a safe and secure location before making incident notifications via cell phone.
- An emergency response agency can be provided priority telecommunications access through the Cybersecurity and Infrastructure Agency in the event that cell phone carriers or coverage are overwhelmed.
- Some shippers and carriers go above the requirements for notification of issues along the route by using a "see something say something" protocol. While not a specific regulatory requirement, it was recognized as a common part of creating and maintaining an effective security culture that emphasizes paying attention to non-routine behaviors and actions during transport operations involving Category 1 and Category 2 sources.

Information Security -

Information security and insider threat for Category 1 radioactive material shipments while in transit are being addressed by TSUSG PC2/3 and PC 6 respectively. Security and mitigation techniques, both covert and overt, are used by law enforcement during transport operations. In addition to tactics, the following secure communications enhance response time to security incidents and are considered best practices:

- In addition to 10 CFR Part 37 communications' requirements during transport, mobile radios (law enforcement with discreet frequencies and encryption) are used for communication between the carrier driver and law enforcement and/or tracking center in some states during escort. They are provided to the drivers once the conveyance enters the state at a designated location, such as a welcome center or weigh station, and collected upon delivery at the destination or when exiting the state.
- Dedicated satellite cell phones are also used and are linked to a specific secure system, such as southern link, to help prevent or mitigate common connection issues with high call volumes or lost signals. Other methods of communication were mentioned such as AM radio broadcast frequencies for emergencies and security incidents, electronic highway notification signs, and Omnitrac/TRANSCOM.
- Some states use a check-in and -out policy along with tracking shipments through the state. This may facilitate a timelier incident response if a carrier misses a check-in time.

Planning and coordinating escort activities at domestic and international borders -

- The Commercial Vehicle Safety Alliance (CVSA) Level VI inspection program for HRCQ radioactive shipments fostered the establishment of coordinated safety compliance inspection

activities along main domestic highway transport corridors at state and international borders among state and provincial law enforcement agencies. As the program matured, inspection procedures and inspector qualification standards were modified to mitigate unnecessary delays during transport operations. Relationships and interactions between adjacent state and Canadian federal and provincial agencies have been enhanced. Although it is understood that the CVSA Level VI inspection program is intended to ensure safety and adequacy of the conveyance, some of these law enforcement agencies also provide security escorts for Category 1 shipments. As a result of the on-going relationship between TSUSG and CVSA, the development of a transport security training component to add to current CVSA training modules for these inspectors has been discussed for further consideration.

- International ports of entry for HRCQ Category 1 radioactive material shipments are co-managed by US Customs & Border Protection, US Department of Transportation, State law enforcement agencies, and their Canadian counterparts. No significant issues were identified by the PC membership with these processes. Delays at the border for carriers are usually a result of out of service conditions or other regulatory compliance issues. Additionally, there is also the occasional disconnect in communicating and coordinating respective activities between state, provincial and federal agencies.

Establishing and using safe havens-

In addition to pre-designated safe havens established between the licensee and Governor's designee prior to transport of Category 1 source shipments, the PC5 membership recommends the following best practices to enhance in-transit response to security incidents:

- One committee (Governor's Designee) member has a mature safe haven program, including pre-planned and temporary safe havens. Existing military bases located on primary transportation routes are used as safe havens for Category 1 shipments. The state coordinates with these bases regularly to ensure awareness and access procedures are current. Use of these established protocols allow for consistency in the event of the need for access to the base regardless of when replacement personnel assume vacated positions. Another TSUSG state agency member has military bases along primary transportation routes with predetermined safe havens but does not currently use a similar system to ensure ease of access on base. Military bases routinely recognize state law enforcement credentials but similar access for non-government vehicles could potentially be problematic due to the rarity of the need for a safe haven. For licensees and States that have conveniently located military bases on commonly utilized transportation routes, pre-planning and establishing a Memorandum of Understanding (MOU) to provide a safe haven with inherent multiple layers of physical security in the event of an active or potential security threat is considered a best practice.
- State law enforcement agencies, in addition to pre-planned safe havens, also identify other rallying points to serve as safe havens along their respective transport corridors that are familiar to other local law enforcement assets. Locations are usually close to interstate highway exits

with large, well illuminated parking areas such as rest areas, welcome centers and large commercial fueling stations.

Highway Security Incident/Response Scenarios-

Two of three incident scenarios discussed at PC5 meetings are presented below. The committee members participated and responded as each scenario was presented.

Co60 Category 1 Security Incident Scenario #1

Single transport vehicle source shipment originating from Canada entered at the Canada/New York, USA, border traversing several states. Incident occurs just (40 miles) before the escorted transport vehicle reaches a state border that does not provide a state police escort.

The driver of the truck receives a call on his personal cell phone from his wife who is very upset. She suddenly hands the phone over to someone who informs the driver that his family members are currently hostages. He is told that no harm will come to them if he cooperates fully with demands. He is told to turn off all forms of communication except his personal cell phone. The driver, shaken, agrees and is told to put his phone on speaker and standby for further instructions.

Suddenly, the two highway patrol (HP) escort vehicles engines shut down. Each flash their lights at the transport vehicle and then pull off the highway. HP two-way radios are jammed. The driver is told to continue to the next exit which is over a hill.

The driver is told to travel 10 miles and pull into an abandoned warehouse facility. He is directed into a building and is bound and blindfolded. The telemetry on the vehicle is disabled and the tractor is exchanged for another. Further, a makeshift wooden over-pack is lowered over the Type B Packages and secured. The vehicle then leaves the facility in an unknown direction. The driver is left but not told that his family is safe or has been released.

The following observations and responses were collected from this exercise:

- Most Carriers that transport HAZMAT or high value shipments employ a duress signal that would be sent to their respective communication centers or other designated law enforcement (LE) organizations.
- In the event of complete loss of communication assets combined with sudden disablement of escort vehicles, LE officers would immediately attempt to flag down assistance from passing traffic.
- Continuity of communications may be a challenge if the vehicle is stolen and travels on secondary roads of jurisdictions not included in transport security plans.
- Quick incident response and reaction is imperative.

- In the event of a security incident, it is important for the state LE agency providing shipment escorts to immediately engage local and adjacent state LE assets to assure the most effective and timely response.
- Governor's Designees, Shippers and Carriers provide time critical information to LE. Since a security incident would be a very uncommon event, it is important for immediate interaction. In the event that one or more of these functional groups is unavailable, establishing secondary contacts to access shipment information is imperative.

Security Incident Scenario #2

Link to a South African Cash in Transit (CIT) attempted vehicle robbery shown for discussion on communications and safe havens: https://www.youtube.com/watch?v=M6qEee1_4fw

- This shows several good examples of what can happen during an attack in transit, even though it isn't a radiological conveyance.
- Some key take-aways:
 - Fight or Flight response by driver and assistant driver. Driver was more seasoned and kept dialogue going while also conducting evasive maneuvers. Assistant driver appears to not communicate or is slow to respond (not making weapon condition 1 or starting emergency communication).
 - Communication is key to getting support and should be conducted as early as possible.
 - Driver does a good job of driving through and out of engagement area multiple times (this raises the question, what should a radiological shipment do in a situation like this).
 - Need for safe haven is clear, was there one that the driver was going to or did he know where the closest one was?
 - Training is key to responding to a situation like this. If someone hasn't been in a situation like this, what will he or she do? Will they resort to their training? Did they ever have training for something like this?

Training (suggestions)-

- LE training on the physical characteristics of and differences between **special form** (Category 1 and Category 2 sources) versus **normal form** licensed radioactive material.
- Local LE familiarization of licensed facilities and their most used transport corridors within their respective jurisdiction.
- Host annual transport security incident exercises involving Carrier/Forwarder/Licensee/LE (local, state and federal)/regulator with emphasis on communication and response time followed by implementation of lessons learned improvement measures.
- Specific security response training for both Category 1 and Category 2 sources in transit or used in licensed mobile operations for 911 dispatch operators.

Best Practices-

- Pre-licensing inspections of proposed transportation operations
- Expanded License Inspection Procedures to include Transportation Security
- Establishing interagency relationships among State, County, Municipal LE (and adjacent State jurisdictions)
- Establishing standing MOUs with military installations to create more safe havens
- Use Fusion Centers or a one call incident response operator
- It is also recognized that Category 1 and Category 2 transport security protocols are a subset of other vulnerable HAZMAT shipments. The lessons learned through this committee's discussions can also be applied to these commodities.