



## Commercial Vehicle Safety Alliance



COMMERCIAL VEHICLE SAFETY ALLIANCE  
UPDATE ON WIPP SHIPMENTS – April 2005

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Subcommittee  
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## History of CVSA

- CVSA was formed in 1980 by seven western states and one Canadian province.
- Membership now includes all fifty states and two U.S. Territories, all Canadian provinces and territories, and Mexico.
- Extensive associate membership – over 450 non-voting members.
- Initially formed to cover uniform vehicle inspections – now covers vehicle, driver and cargo inspections.



## History of CVSA (Cont.)

- Members sign a Memorandum of Understanding (MOU).  
Recognize and agree to uniform inspection procedures and out-of-service criteria.
- CVSA develops and implements highway inspection procedures and out-of-service criteria known as the North American Standard (NAS).  
Brakes, steering, tires, wheels and rims, fuel and exhaust systems, lights, driver qualifications, and cargo securement are among the items covered.



## History of CVSA (Cont.)

- In 1986, the DOE Office of Civilian Radioactive Waste Management (OCRWM) asked CVSA to enter into a cooperative agreement to develop inspection standards for transporting radioactive materials.
- A final report on this phase of the Cooperative Agreement, including the Pilot Study, was issued in October 1999 and an interim report was published in October 2002 with an update on WIPP shipments published in April 2004. (Reports are available on [www.cvsa.org](http://www.cvsa.org))



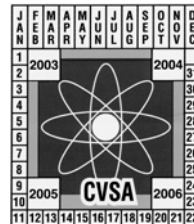
## Background on CVSA Decals

- Certified government employees must perform the inspections and affix the decals.
- The employee performing inspections and/or affixing CVSA decals must have first successfully completed a training program.
- Regular CVSA decals are good for 90 days.



## Additional Requirements for Level VI Decals

- The Level VI Standard: The decal is affixed at the Point of Origin of the shipment and removed at the Point of Destination.
- It is valid for only one trip.
- Inspector training for Level VI program.





## April 2005 Report

- Reviews data from October 1, 2002 to December 31, 2004.
  - Data review and report based on the inspection forms received from the states.
- Explanation of the differences in Level I and Level VI violations found.



## Number and Type of Inspections

Table 1. WIPP Shipments: Number and type of inspections by state (October 1, 2002-December 31, 2004)

State	Point of Origin	En Route	Total
Colorado	1,179	271	1,450
Idaho	149		149
Illinois	8		8
New Mexico	43	1829	1872
South Carolina	435		435
Washington/Oregon	66		66
<b>Total Number of Inspections</b>	<b>1880</b>	<b>2100</b>	<b>3980</b>



# Number and Type of Violations

Table 2. WIPP Shipments: Number and type of violation found listed by state and type of inspection (October 1, 2002 – December 31, 2004)

State/Type of Inspection	No. of Inspections Identifying Violations	No. of Violations Identified	NOT Out-of-Service Violations	Out-of-Service Violations		
				Level I	Level VI	Total
<b>Colorado</b>						
Point of Origin	60	65	29	19	17	36
En Route	44	50	36	10	4	14
<b>Idaho</b>						
Point of Origin	49	63	52	4	7	11
<b>Illinois</b>						
Point of Origin	4	4	1	2	1	3
<b>New Mexico</b>						
Point of Origin	6	6	4	1	1	2
En Route	79	90	62	13	15	28
<b>South Carolina</b>						
Point of Origin	15	18	15	2	1	3
<b>Washington/Oregon</b>						
Point of Origin	5	6	0	0	6	6
<b>Total</b>	<b>262</b>	<b>302</b>	<b>199</b>	<b>51</b>	<b>52</b>	<b>103</b>



# Percentage of Inspections Having No Violation or Violations

Table 3. WIPP Shipments: Percentage of inspections having no violation or violations listed by state and type of inspection (October 1, 2002 – December 31, 2004)

State/Type of Inspection	Number of Inspections	NO Violations	Violations
<b>Colorado</b>			
Point of Origin	1,179	94.91%	5.09%
En Route	271	83.76%	16.24%
<b>Idaho</b>			
Point of Origin	149	67.11%	32.89%
<b>Illinois</b>			
Point of Origin	8	50.00%	50.00%
<b>New Mexico</b>			
Point of Origin	43	86.05%	13.95%
En Route	1,829	95.68%	4.32%
<b>South Carolina</b>			
Point of Origin	435	96.55%	3.45%
<b>Washington/Oregon</b>			
Point of Origin	66	92.42%	7.58%



## Point of Origin and En Route Inspection Data

Table 4. WIPP Shipments: Percentage of point of origin and en route inspections with no violation and with violations (October 1, 2002 – December 31, 2004)

Inspection Location	Number of Inspections	NO Violations	Violations
Point of Origin	1,880	92.61%	7.39%
En Route	2,100	94.14%	5.86%



## Difference in Level I and Level VI Violations Found

- Is a CVSA Level I violation more or less serious than a CVSA Level VI violation?
  - A level I violation is a more serious violation.
- Important to understand the differences when looking at Table 5 and Table 6.



## Difference in Level I and Level VI Violations Found (Cont.)

- The following brake example illustrates the difference between the Level I and Level VI inspection standards in the seriousness of a violation:

The CVSA Level I inspection standard states that if 20% or more of the brakes on the vehicle or combination are out of adjustment, the vehicle is placed out of service. Under a CVSA Level VI inspection, if any brakes are out of adjustment, the vehicle is placed out of service. It is only reasonable to assume that a vehicle with 10 brakes that has two (20%) brakes out of adjustment has a more critical or higher chance of causing an accident compared to the same vehicle having any one brake out of adjustment.



## Comparison With Federal Motor Carrier Safety Administration Data

Table 5. WIPP Shipments: Comparison with FMCSA inspection data

FMCSA Roadside Inspection Data for the Year 2003*			FMCSA HAZMAT Inspection Data for the Year 2003*			CVSA Level VI Inspection Data for WIPP Shipments (October 1, 2002 – December 31, 2004)				
Inspection Activity	Number	Percent	Inspection Activity	Number	Percent	Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent
Number of Inspections	3,008,788		Number of Inspections	181,462		Number of Inspections	3,980			
With no Violations	811,816	26.98%	With no Violations	148,317	81.73%	With no Violations	3,718	93.42%		
With Violations	2,196,972	73.02%	With Violations	33,145	18.27%	With Violations	262	6.58%		
Driver OOS** Rate		6.77% (Level I OOS)	Driver OOS Rate		3.18% (Level I OOS)	Driver OOS Rate		0.08%	0.08%	0.00%
Vehicle OOS Rate		22.90% (Level I OOS)	Vehicle OOS Rate		17.92% (Level I OOS)	Vehicle OOS Rate		2.34%	1.08%	1.26%

\*Data Source: FMCSA Motor Carrier Management Information System December 23, 2004;dlanapshot  
 \*\* OOS = Out-of-Service



## Comparison With Federal Motor Carrier Safety Administration Data (Cont.)

- 6.58% of the CVSA Level VI inspections found violations while 18.27% of all HAZMAT inspections found violations and 73.02% of the FMCSA roadside inspections found violations.
- 0.08% Driver OOS (Level I OOS only).
- 2.34% Vehicle OOS (1.08% Level I OOS & 1.26% Level VI OOS).



## CVSA Level VI Inspections-WIPP Shipments (March 24, 1999 – December 31, 2004)

Table 6. Review of entire CVSA Level VI Inspections for WIPP shipments

CVSA Level VI Inspection Data for WIPP Shipments (March 24, 1999 – December 31, 2004)				
Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent
Number of Inspections	6,950			
With no Violations	6,437	92.62%		
With Violations	513	7.38%		
Driver OOS* Rate		0.10%	0.10%	0.00%
Vehicle OOS Rate		2.50%	0.83%	1.67%

\*OOS = Out-of-Service



## CVSA Level VI Inspections-WIPP Shipments (March 24, 1999 – December 31, 2004)

- 6950 CVSA Level VI inspections completed.
- No violations in 92.62% of inspections.
- 0.10% Driver OOS (Level I OOS only).
- 2.50% Vehicle OOS (0.83% Level I OOS & 1.67% Level VI OOS).



## Conclusions

- The continued ultimate goal of the CVSA Level VI inspection program is safe and uneventful shipments of radioactive materials from origin to destination.
- Low OOS rate = Low incidents (one non-chargeable accident and one near miss during the October 1, 2002 to December 31, 2004 time period).



## Conclusions (Cont.)

- Security Risk for En Route Shipments.
  - The security risk to the WIPP shipments should be considered with respect to the number of times and the length of time each shipment is stopped en route.



## Conclusions (Cont.)

- Some states are required (either by law or other mandate) to inspect each shipment that enters their states.
  - For en route states, instead of completing a CVSA Level VI inspection on each shipment, states could choose to complete one of the other CVSA Level inspections and randomly inspect to the CVSA Level VI inspection standard.



## Future Activities

- Level VI Training Schedule for 2005
  - Harrisburg, Pennsylvania – January 10-13
  - Phoenix, Arizona – Level VI Instructors’ Meeting. February 21-22 and the Level VI “Train the Trainer” Refresher Course, February 23-24
  - Jefferson City, Missouri – March 14-17
  - Albuquerque, New Mexico – May 16-26
  - Austin, Texas – June 6-9
  - Mendota Heights, Minnesota – July 18-21
  - Grand Island, Nebraska – August 15-18
  - Blythewood, South Carolina – September 12-15
  - Oak Ridge, Tennessee – October 17-30
  - Linthicum Heights, Maryland – November 14-17



## Future Activities (Cont.)

- New cooperative Agreement with DOE’s Office of National Transportation
  - Project title: Level VI Inspections of Spent Nuclear Fuel & High-Level Radioactive Waste Shipments into Yucca Mountain
  - Conduct a Peer Review on the Level VI Program
  - Develop and implement a public Outreach Program
  - Maintain Data Base for the Level VI Inspections
  - Identify technologies for the Level VI Program
  - Train inspectors and shippers with respect to the spent nuclear fuel shipments to Yucca Mountain
  - Work with U.S. DOT and FMCSA to have the Level VI Program part of the regulations in order to have a valid enforcement for states and to provide certainty for shippers about the expectations for the Level VI Program



## Future Activities (Cont.)

- Establish a CVSA Ad Hoc Committee with RAM Sub-Committee and Security Committee
- Level VI Data Upload into SafetyNet and reports to manage program
- Level VI Inspection requirements for the DOT/FMCSA-Hazardous Materials Safety Permit (FMCSA-97-2180) Final rule effective July 30, 2004 – Compliance required Jan. 1, 2005



## Questions



Safety and Efficiency in the Transportation  
of Radioactive Materials

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