Commercial Vehicle Safety Alliance Level VI Program 2016 Inspection Report

For Inspections in CY 2013 and CY 2014

Prepared for U.S. Department of Energy

Prepared by Commercial Vehicle Safety Alliance

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Introduction

The Commercial Vehicle Safety Alliance (CVSA), a nonprofit organization of federal, state, and provincial government agencies and representatives from private industry in the United States, Canada and Mexico, is dedicated to improving commercial vehicle safety. The Alliance is comprised of all 50 states, two U.S. territories, twelve Canadian provinces and territories, and Mexico. CVSA promotes an environment free of commercial vehicle accidents and incidents. Its mission is to promote commercial motor vehicle safety and security by providing leadership to enforcement, industry and policy makers. This is accomplished by establishing effective transportation safety standards for motor carriers, drivers, vehicles and inspectors through compliance, education, training and enforcement programs.

Member agencies include state police, highway patrol organizations, public service and utility commissions, departments of transportation, motor vehicle and public safety departments, Canadian provincial governments, the Mexican government and supporting groups such as the U.S. Department of Transportation, the U.S. Department of Energy (DOE), Canadian Transport Officials and more than 500 associate industry members.

CVSA serves as a critical, central point for bringing state/provincial officials together with the truck/bus industries and federal governments in a unique discussion and problem-solving exchange of ideas. Member agencies sign a Memorandum of Understanding (MOU) and recognize and agree to uniform inspection standards and procedures as developed by CVSA. One of the MOU's significant elements is a reciprocity agreement between members to honor inspections conducted by other member agencies authorized to affix the CVSA decal.

The CVSA/DOE Cooperative Agreement

In 1986, the DOE Office of Civilian Radioactive Waste Management (OCRWM) and CVSA entered into a cooperative agreement to develop inspection standards for transporting radioactive materials. This standard became known as the Enhanced North American Standard Inspection for Radioactive Materials or CVSA Level VI inspection program. OCRWM extended the agreement to conduct a pilot study to evaluate the soundness of the procedures, develop training curricula, conduct training, perform inspections and generate statistical data on the inspections. A final report on this phase of the Cooperative Agreement, including the Pilot Study, was issued in October 1999. The CVSA/DOE Cooperative Agreement Interim Report was published in October 2002, which updated the program's progress to that point. In 2004 CVSA and DOE began a multiyear program to keep interested parties updated on the progress of the CVSA Level VI inspection program with a focus on DOE radioactive waste shipments to the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. At that time the only radioactive materials shipments receiving a CVSA Level VI inspection were those shipped by DOE. There was no regulation for a Level VI inspection of other radioactive material shipments.

HRCQ Radioactive Material Shipments

Effective January 1, 2005, the U.S. Department of Transportation required all vehicles and carriers transporting Highway Route Control Quantities (HRCQ) of radioactive material to obtain a Safety Permit. One of the requirements to obtain the permit requires the carriers to pass a CVSA Level VI inspection prior to the shipment being allowed to travel in the United States. All HRCQ radioactive material shipments entering into the United States must also pass the CVSA Level VI inspection either at the shipment's point of origin or when the shipment enters the United States.

As a result of this new regulation, CVSA began to receive a large number of inspection forms for CVSA Level VI inspections of other radioactive material shipments. Many of these inspections were for shipments either originating outside the United States or having destinations outside the United States. These shipments and associated inspections involved different trucking companies, vehicles, and drivers as compared to the shipments for DOE. Hence, beginning with the inspection report for CY 2006, CVSA presents and compares Level VI inspection data for both DOE WIPP shipments and other types of DOE and non-DOE shipments (referred to as "non-WIPP shipments").

CVSA Level II and Level III Inspections of En Route Shipments

CVSA guidelines and training to members are that a shipment inspected to the "defect free" level at the point of origin need not be re-inspected to the same degree while en route. Some states have laws or statutes that require all radioactive material shipments to be inspected and/or escorted. It was suggested in previous inspection reports that en route states with these laws choose to complete one of the other CVSA Level inspections and randomly inspect to the CVSA Level VI inspection standard instead of the practice of completing a full CVSA Level VI inspection on each shipment. Implementation of this suggestion was seen in the CY 2006 inspection data. States that previously conducted full CVSA Level VI inspections on all en route shipments were completing more CVSA Level II and Level III inspections in lieu of CVSA Level VI inspections.

A CVSA Level II inspection (also known as the Walk-Around Driver/Vehicle Inspection) includes an examination of the items specified under the North American Standard Inspection but does not require physically getting under the vehicle to inspect. As a minimum, Level II inspections must include examination of: driver's license; medical examiner's certificate and Skill Performance Evaluation Certificate (if applicable); alcohol and drugs; driver's record of duty status as required; hours of service; seat belt; vehicle inspection report (if applicable); brake systems; coupling devices; exhaust systems; frame; fuel systems; lighting devices (turn signals, brake lamps, tail lamps, head lamps and lamps/flags on projecting loads); safe loading; steering mechanism; suspension; tires; van and open-top trailer bodies; wheels and rims; windshield wipers; emergency exits on buses, and Hazardous Materials (HM) requirements as applicable. HM-required inspection items are inspected by certified HM inspectors.

The CVSA Level III inspection (or Driver/Credential Inspection) includes at a minimum an examination of the driver's license; medical examiner's certificate and Skill Performance Evaluation Certificate; driver's record of duty status; hours of service; seat belt; and vehicle inspection report.

States may opt to perform a CVSA Level II or Level III inspection instead of a Level VI inspection on an en route shipment. However, for en route shipments only the Level VI inspection data are considered in this Level VI inspection report.

CVSA Level VI Inspection Report

This is the seventh CVSA Level VI Program inspection report (CY 2013 and CY 2014 Report). It covers inspections conducted in CY 2013 and CY 2014. All previous and current reports may be obtained through CVSA's website at www.cvsa.org. Once on the website, to locate a report, select "Programs" at the top of the page then select the "North American Standard Level VI Inspection Program" link. Next select "News, Updates and Reports" on the left navigation bar and then select the "CVSA/WIPP Updates and Reports" link that subsequently appears.

Previous inspection reports were produced periodically with the most recent report published in December 2013, which covers inspections through CY 2012. The data for these reports were initially obtained from the hardcopy inspection forms submitted by the reporting agencies. Then beginning with the November 2010 report (which covers inspections through CY 2009, but excludes CY 2007), it was decided to obtain data exclusively from the Federal Motor Carrier Safety Administration's (FMCSA's) Analysis & Information (A&I) Online website because by that time almost all agencies were submitting their inspection forms electronically and the capability to retrieve the Level VI inspection data from the A&I Online database became available. However for that report CY 2007 inspection data were not included as it was determined that a significant number of 2007 inspection forms were not submitted electronically. Beginning with 2008 there is high confidence that almost all Level VI inspection forms are submitted electronically and nearly all inspection data are available on the A&I Online website.

The Analysis & Information (A&I) Online Data Used for this Report

The CY 2013 and CY 2014 inspection data used for this report were retrieved from the Roadside Inspections module of the A&I Online website (http://ai.fmcsa.dot.gov/SafetyProgram/RoadsideInspections.aspx) with the Data Source being the FMCSA Motor Carrier Management Information System (MCMIS) data snapshot as of 12/28/2015. That is, the data retrieved are current with the state of the MCMIS on 12/28/2015.

Selected for retrieval were national Level VI inspections for all vehicles for CY 2013 and CY 2014. This generated 1,686 inspections for CY 2013, and 476 inspections for CY 2014. There were much fewer inspections in CY 2014 due to the closure of WIPP in

February 2014. The CY 2013 data included 4 duplicate report numbers that required contacting the states involved to confirm that the 8 inspections were all distinct.

One of the critical pieces of information for this report (and the previous reports relying on data from the A&I Online database) is shipment destination, which is not coded for the Level VI inspections in the A&I Online database. Shipment destination would reveal if the inspection is for a WIPP shipment. So a sequence of logical steps was developed from information that is available from the database to determine the type of shipment as 1) WIPP, 2) DOE but not WIPP, or 3) non DOE.

The logic used was (A&I Online database field names are in all capital letters):

- 1) If TRUWASTE is checked and the CARRIER NAME/DOT NUMBER is for one of the 2 carriers designated for WIPP shipments then it is a WIPP shipment.
- 2) If TRUWASTE is not checked and DOE FLAG is checked then it is a DOE shipment but not a WIPP shipment.
- 3) If TRUWASTE and DOE FLAG are both not checked then it is a non DOE shipment if HRCQ is checked.

Eleven inspections for CY 2013 and 25 inspections for CY 2014 could not be automatically categorized using this logic. From an expert review of information from the A&I Online database it was possible to assign one of the three shipment types to all but one of these 36 inspections. The one inspection that could not be assigned a shipment type was removed from the analyses. In addition, the expert reviewer determined that due to miscoded data in the A&I Online database, five inspections for 2013 were automatically categorized incorrectly and were then reassigned the proper shipment type. The resulting totals are 1,685 inspections for CY 2013 and 476 inspections for CY 2014.

Another critical piece of information for this report (and the previous reports relying on data from the A&I Online database) that is not coded consistently in the A&I Online database for the Level VI inspections is if the violation is an out-of-service violation and if it is an out-of-service violation what type of out-of-service violation, that is, Level VI or NAS (Level I). In the previous reports that relied on data from the A&I database, an expert review was conducted using information from the A&I database and available inspection forms for each inspection with violations to attempt to code each violation as a Level VI out-of-service violation, a Level I out-of-service violation, or neither. However, for this report it was decided to forgo the expert review and use only the information obtained from the A&I database. The only out-of-service violation information obtainable from the A&I database is whether or not a violation is a Level VI out-of-service violation. Additionally, the A&I database does not include the inspector comments that would be useful to determine if a violation is a Level I out-of-service violation. Consequently, this report (unlike previous reports) does not have statistics on NAS (Level I) out-of-service violations and out-of-service violations in general. The

only exception is the one violation reported by California in 2014. Contact with the state confirmed that the violation was not an out-of-service violation.

The Tables in this Report

The following tables are the same tables used in previous inspection reports in order to maintain consistency. Once a state is added to the table it is never removed for the reason that from one year to the next a state may or may not have an inspection. For WIPP shipments, Wyoming submitted inspection data for the first time in 2013. For non-WIPP shipments, Vermont submitted inspection data for the first time in 2013 and Kentucky submitted inspection data for the first time in 2014. Note that in this report the states and other agencies (i.e., federal and territorial) submitting inspection data are referred to as "states" in the tables and associated discussions.

Number of Shipments - WIPP

Table 1A identifies the number and type of inspections by state for WIPP shipments in 2013. Data from a total of 1,487 inspections were submitted by the states during this time period. The largest number of point of origin inspections occurred in Idaho with 344 while the largest number of en route inspections occurred in New Mexico with 396.

Table 1B identifies the number and type of inspections by state for WIPP shipments in 2014. Data from a total of 229 inspections were submitted by the states during this time period. The largest number of point of origin inspections occurred in New Mexico with 62 and the largest number of en route inspections occurred in New Mexico with 49.

Table 1A. WIPP Shipments: Number and type of inspections by state (January 1, 2013 – December 31, 2013)

State	Point of Origin	En Route	Point of Destination	Total
Arizona	0	0	0	0
California	0	0	0	0
Colorado	1	355	0	356
Georgia	0	0	0	0
Idaho	344	1	0	345
Illinois	37	0	0	37
Nevada	0	0	0	0
New Mexico	185	396	0	581
Oregon	0	0	0	0
New York	0	0	0	0
Pennsylvania	0	0	0	0
South Carolina	153	0	0	153
Tennessee	14	0	0	14
Washington	0	0	0	0
Wyoming	0	1	0	1
Total	734	753	0	1487

Table 1B. WIPP Shipments: Number and type of inspections by state (January 1, 2014 – December 31, 2014)

State	Point of Origin	En Route	Point of Destination	Total
Arizona	0	0	0	0
California	0	0	0	0
Colorado	0	38	0	38
Georgia	0	0	0	0
Idaho	52	0	0	52
Illinois	0	0	0	0
Nevada	0	0	0	0
New Mexico	62	49	0	111
Oregon	0	0	0	0
New York	0	0	0	0
Pennsylvania	0	0	0	0
South Carolina	22	0	0	22
Tennessee	6	0	0	6
Washington	0	0	0	0
Wyoming	0	0	0	0
Total	142	87	0	229

Number of Shipments - Non-WIPP

Table 2A identifies the number and type of inspections by state for non-WIPP shipments in 2013. Data were submitted for a total of 198 CVSA Level VI inspections by the states during this time period.

Table 2B identifies the number and type of inspections by state for non-WIPP shipments in 2014. Data were submitted for a total of 247 CVSA Level VI inspections by the states during this time period.

Table 2A. Non-WIPP Shipments: Number and type of inspections by state (January 1, 2013 – December 31, 2013)

State	Point of Origin	En Route	Point of Destination	Total
Arizona	0	5	0	5
California	0	0	0	0
Colorado	0	5	0	5
Florida	0	0	1	1
Georgia	0	0	0	0
Idaho	1	0	0	1
Illinois	3	0	0	3
Indiana	0	0	0	0
Maine	0	0	0	0
Maryland	18	0	0	18
Massachusetts	1	0	0	1
Michigan	56	0	0	56
Missouri	2	0	0	2
Nebraska	1	0	0	1
Nevada	0	0	0	0
New Jersey	17	0	0	17
New Mexico	7	43	0	50
New York	14	0	0	14
North Carolina	1	0	0	1
North Dakota	0	0	0	0
Ohio	3	2	0	5
Oregon	0	0	0	0
Pennsylvania	0	0	0	0
Puerto Rico	0	0	0	0
South Carolina	1	0	0	1
Tennessee	6	6	0	12
Texas	0	0	0	0
Vermont	1	0	0	1
Virginia	3	0	0	3
Washington	0	1	0	1
Wisconsin	0	0	0	0
federal	0	0	0	0
Total	135	62	1	198

Table 2B. Non-WIPP Shipments: Number and type of inspections by state (January 1, 2014 – December 31, 2014)

State	Point of Origin	En Route	Point of Destination	Total
Arizona	0	2	0	2
California	5	0	0	5
Colorado	0	9	0	9
Florida	0	0	0	0
Georgia	0	1	0	1
Idaho	0	0	0	0
Illinois	0	3	0	3
Indiana	0	0	0	0
Kentucky	0	7	0	7
Maine	0	0	0	0
Maryland	21	0	0	21
Massachusetts	2	0	0	2
Michigan	58	0	0	58
Missouri	3	0	0	3
Nebraska	1	0	0	1
Nevada	0	0	0	0
New Jersey	7	0	0	7
New Mexico	7	41	0	48
New York	26	0	0	26
North Carolina	0	0	0	0
North Dakota	0	0	0	0
Ohio	1	0	0	1
Oregon	0	0	0	0
Pennsylvania	0	0	0	0
Puerto Rico	2	0	0	2
South Carolina	0	0	0	0
Tennessee	2	6	0	8
Texas	14	0	0	14
Vermont	3	0	0	3
Virginia	0	0	0	0
Washington	25	1	0	26
Wisconsin	0	0	0	0
federal	0	0	0	0
Total	177	70	0	247

Number of Violations

Tables 3A and 3B (WIPP shipments: CY 2013 and CY 2014, respectively) and Tables 4A and 4B (non-WIPP shipments: CY 2013 and CY 2014, respectively) identify the number and type of violations found by state. The first column displays the number of inspections that identified violations and the second column displays the number of violations identified during those inspections. The other columns display the number of non out-of-service violations and out-of-service violations if known. For this report, only information on Level VI out-of-service violations is known. Information that is unknown is indicated in the tables by an "*".

Table 3A includes a total of 18 inspections identifying 21 violations during CY 2013. Of those 21 violations 7 were CVSA Level VI out-of-service violations.

Table 3B includes a total of 5 inspections identifying 5 violations during CY 2014. Of those 5 violations 1 was a CVSA Level VI out-of-service violation.

Table 3A. WIPP Shipments: Number and type of violations found listed by state and type of inspection (January 1, 2013 – December 31, 2013)

	Tune of	Number of Inspections	Number of	NOT	Out-of-Service Vio		of-Service Violations
State	Type of Inspection	Identifying Violations	Violations Identified	Out-of-Service Violations	NAS	Level VI	Total
Arizona		0	0	0	0	0	0
California		0	0	0	0	0	0
Colorado	En Route	3	4	*	*	0	*
Georgia		0	0	0	0	0	0
Idaho	Point of Origin	10	11	*	*	2	*
Illinois		0	0	0	0	0	0
Nevada		0	0	0	0	0	0
New Mexico	En Route	4	5	0	0	5	5
Oregon		0	0	0	0	0	0
South Carolina		0	0	0	0	0	0
Tennessee	Point of Origin	1	1	*	*	0	*
Washington		0	0	0	0	0	0
Total		18	21	*	*	7	*

Table 3B. WIPP Shipments: Number and type of violations found listed by state and type of inspection (January 1, 2014 – December 31, 2014)

	Type of	Number of Inspections Identifying	Number of Violations	NOT Out-of-Service	Out-of-Service Vid		Service Violations	
State	Inspection	Violations	Identified	Violations	NAS	Level VI	Total	
Arizona		0	0	0	0	0	0	
California		0	0	0	0	0	0	
Colorado		0	0	0	0	0	0	
Georgia		0	0	0	0	0	0	
Idaho	Point of Origin	4	4	*	*	0	*	
Illinois		0	0	0	0	0	0	
Nevada		0	0	0	0	0	0	
New Mexico	Point of Origin	1	1	0	0	1	1	
Oregon		0	0	0	0	0	0	
South Carolina		0	0	0	0	0	0	
Tennessee		0	0	0	0	0	0	
Washington		0	0	0	0	0	0	
Total		5	5	*	*	1	*	

Table 4A includes a total of 7 inspections identifying 10 violations during CY 2013. Of those 10 violations 2 were CVSA Level VI out-of-service violations.

Table 4B includes a total of 11 inspections identifying 19 violations during CY 2014. Of those 19 violations 4 were CVSA Level VI out-of-service violations.

The appendices to this report contain lists of the violations for WIPP and non-WIPP shipments by year. Note that the data are listed as reported by the A&I Online database and therefore there is no information on NAS (Level I) out-of-service violations.

Table 4A. Non-WIPP Shipments: Number and type of violations found listed by state and type of inspection (January 1, 2013 – December 31, 2013)

	Type of	Number of Inspections	Number of				olations
State	Type of Inspection	Identifying Violations	Violations Identified	Violations	NAS	Level VI	Total
Arizona		0	0	0	0	0	0
California		0	0	0	0	0	0
Colorado	En Route	1	3	*	*	0	*
Idaho		0	0	0	0	0	0
Illinois	Point of Origin	1	1	*	*	0	*
Maryland		0	0	0	0	0	0
Massachusetts		0	0	0	0	0	0
Michigan	Point of Origin	1	1	*	*	0	*
Missouri		0	0	0	0	0	0
Nevada		0	0	0	0	0	0
New Jersey		0	0	0	0	0	0
New Mexico		0	0	0	0	0	0
New York		0	0	0	0	0	0
Puerto Rico		0	0	0	0	0	0
Ohio	En Route	2	2	0	0	2	2
South Carolina		0	0	0	0	0	0
Tennessee	Point of Origin	2	3	*	*	0	*
Virginia		0	0	0	0	0	0
Washington		0	0	0	0	0	0
Total		7	10	*	*	2	*

Table 4B. Non-WIPP Shipments: Number and type of violations found listed by state and type of inspection (January 1, 2014 – December 31, 2014)

	Tuna of	Number of Inspections	Number of	NOT Out of Souries	Out-of-Service Viol		iolations
State	Type of Inspection	Identifying Violations	Violations Identified	Out-of-Service Violations	NAS	Level VI	Total
Arizona		0	0	0	0	0	0
California	Point of Origin	1	1	1	0	0	0
Colorado	En Route	1	1	0	0	1	1
Georgia	En Route	1	1	*	*	0	*
Idaho		0	0	0	0	0	0
Illinois	En Route	1	8	*	*	2	*
Maryland		0	0	0	0	0	0
Massachusetts	Point of Origin	1	2	*	*	0	*
Michigan	Point of Origin	3	3	*	*	1	*
Missouri		0	0	0	0	0	0
Nevada		0	0	0	0	0	0
New Jersey		0	0	0	0	0	0
New Mexico		0	0	0	0	0	0
New York		0	0	0	0	0	0
Puerto Rico	Point of Origin	1	1	*	*	0	*
Ohio		0	0	0	0	0	0
South Carolina		0	0	0	0	0	0
Tennessee		0	0	0	0	0	0
Vermont	Point of Origin	1	1	*	*	0	*
Virginia		0	0	0	0	0	0
Washington	Point of Origin	1	1	*	*	0	*
Total		11	19	*	*	4	*

Percentage of Inspections with No Violations and Violations

Tables 5A and 5B (WIPP shipments: CY 2013 and CY 2014, respectively) and Tables 6A and 6B (non-WIPP shipments: CY 2013 and CY 2014, respectively) identify the percentage of inspections having no violations or violations, listed by state and type of inspection.

For WIPP shipments in CY 2013 four states reported violations found. The percentage of violations is less than 3 percent for each state and type of inspection with the exception of point of origin inspections for Tennessee (7.1 percent). For WIPP shipments in CY 2014 two states reported violations found. The percentage of violations is 1.6 percent for point of origin inspections for New Mexico and the percentage of violations is 7.7 percent for point of origin inspections for Idaho.

Tables 6A and 6B show that for non-WIPP shipments the percentages tend to be higher than for WIPP shipments for inspections finding violations.

Table 5A. WIPP Shipments: Percentage of inspections having no violations or violations listed by state and type of inspection (January 1, 2013 – December 31, 2013)

State	Type of Inspection	Number of Inspections	No Violations	Violations
Arizona		0	0.00%	0.00%
California		0	0.00%	0.00%
Colorado	Point of Origin	1	100.00%	0.00%
	En Route	355	99.15%	0.85%
Georgia		0	0.00%	0.00%
Idaho	Point of Origin	344	97.09%	2.91%
	En Route	1	100.00%	0.00%
Illinois	Point of Origin	37	100.00%	0.00%
Nevada		0	0.00%	0.00%
New Mexico	Point of Origin	185	100.00%	0.00%
	En Route	396	98.99%	1.01%
New York		0	0.00%	0.00%
Oregon		0	0.00%	0.00%
Pennsylvania		0	0.00%	0.00%
South Carolina	Point of Origin	153	100.00%	0.00%
Tennessee	Point of Origin	14	92.86%	7.14%
Washington		0	0.00%	0.00%
Wyoming	En Route	1	100.00%	0.00%

Table 5B. WIPP Shipments: Percentage of inspections having no violations or violations listed by state and type of inspection (January 1, 2014 – December 31, 2014)

State	Type of Inspection	Number of Inspections	No Violations	Violations
Arizona		0	0.00%	0.00%
California		0	0.00%	0.00%
Colorado	En Route	38	100.00%	0.00%
Georgia		0	0.00%	0.00%
Idaho	Point of Origin	52	92.31%	7.69%
Illinois		0	0.00%	0.00%
Nevada		0	0.00%	0.00%
New Mexico	Point of Origin	62	98.39%	1.61%
	En Route	49	100.00%	0.00%
New York		0	0.00%	0.00%
Oregon		0	0.00%	0.00%
Pennsylvania		0	0.00%	0.00%
South Carolina	Point of Origin	22	100.00%	0.00%
Tennessee	Point of Origin	6	100.00%	0.00%
Washington		0	0.00%	0.00%
Wyoming		0	0.00%	0.00%

Table 6A. Non-WIPP Shipments: Percentage of inspections having no violations or violations listed by state and type of inspection (January 1, 2013 – December 31, 2013)

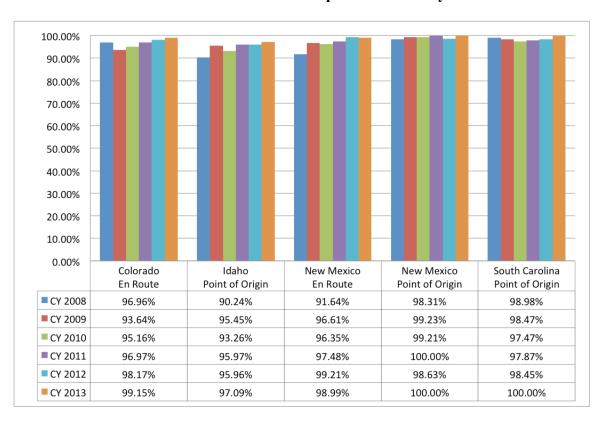
State	Type of Inspection	Number of Inspections	No Violations	Violations
Arizona	En Route	5	100.00%	0.00%
California		0	0.00%	0.00%
Colorado	En Route	5	80.00%	20.00%
Florida	Point of Destination	1	100.00%	0.00%
Georgia		0	0.00%	0.00%
ldaho	Point of Origin	1	100.00%	0.00%
Illinois	Point of Origin	3	66.67%	33.33%
Maine		0	0.00%	0.00%
Maryland	Point of Origin	18	100.00%	0.00%
Massachusetts	Point of Origin	1	100.00%	0.00%
Michigan	Point of Origin	56	98.21%	1.79%
Missouri	Point of Origin	2	100.00%	0.00%
Nebraska	Point of Origin	1	100.00%	0.00%
Nevada		0	0.00%	0.00%
New Jersey	Point of Origin	17	100.00%	0.00%
New Mexico	Point of Origin	7	100.00%	0.00%
	En Route	43	100.00%	0.00%
New York	Point of Origin	14	100.00%	0.00%
North Carolina	Point of Origin	1	100.00%	0.00%
North Dakota		0	0.00%	0.00%
Ohio	Point of Origin	3	100.00%	0.00%
	En Route	2	0.00%	100.00%
Oregon		0	0.00%	0.00%
Pennsylvania		0	0.00%	0.00%
Puerto Rico		0	0.00%	0.00%
South Carolina	Point of Origin	1	100.00%	0.00%
Tennessee	Point of Origin	6	66.67%	33.33%
	En Route	6	100.00%	0.00%
Texas		0	0.00%	0.00%
Virginia	Point of Origin	3	100.00%	0.00%
Vermont	Point of Origin	1	100.00%	0.00%
Washington	En Route	1	100.00%	0.00%
Wisconsin		0	0.00%	0.00%
federal		0	0.00%	0.00%

Table 6B. Non-WIPP Shipments: Percentage of inspections having no violations or violations listed by state and type of inspection (January 1, 2014– December 31, 2014)

State	Type of Inspection	Number of Inspections	No Violations	Violations
Arizona	En Route	2	100.00%	0.00%
California	Point of Origin	5	80.00%	20.00%
Colorado	En Route	9	88.89%	11.11%
Florida		0	0.00%	0.00%
Georgia	En Route	1	0.00%	100.00%
Idaho		0	0.00%	0.00%
Illinois	En Route	3	66.67%	33.33%
Kentucky	En Route	7	100.00%	0.00%
Maine		0	0.00%	0.00%
Maryland	Point of Origin	21	100.00%	0.00%
Massachusetts	Point of Origin	2	50.00%	50.00%
Michigan	Point of Origin	58	94.83%	5.17%
Missouri	Point of Origin	3	100.00%	0.00%
Nebraska	Point of Origin	1	100.00%	0.00%
Nevada		0	0.00%	0.00%
New Jersey	Point of Origin	7	100.00%	0.00%
New Mexico	Point of Origin	7	100.00%	0.00%
	En Route	41	100.00%	0.00%
New York	Point of Origin	26	100.00%	0.00%
North Carolina		0	0.00%	0.00%
North Dakota		0	0.00%	0.00%
Ohio	Point of Origin	1	100.00%	0.00%
Oregon		0	0.00%	0.00%
Pennsylvania		0	0.00%	0.00%
Puerto Rico	Point of Origin	2	50.00%	50.00%
South Carolina		0	0.00%	0.00%
Tennessee	Point of Origin	2	100.00%	0.00%
	En Route	6	100.00%	0.00%
Texas	Point of Origin	14	100.00%	0.00%
Virginia		0	0.00%	0.00%
Vermont	Point of Origin	3	66.67%	33.33%
Washington	Point of Origin	25	96.00%	4.00%
	En Route	1	100.00%	0.00%
Wisconsin		0	0.00%	0.00%
federal		0	0.00%	0.00%

In the fifth inspection report (covering Level VI inspection conducted in CY 2008 and CY 2009) it is stated that the percentages of inspections of WIPP shipments with no violations found for almost all states increased over time, meaning fewer and fewer inspections were finding violations. This was also noted in the sixth inspection report (covering the CY 2010 - CY 2012 time frame). Again it is also the case for CY 2013. For example, Colorado saw an increase in the percent of point of origin inspections finding no violations from 95.16 percent in CY 2010 to 96.97 percent in CY 2011 to 98.17 percent in CY 2012 and 99.15 percent in CY 2013. Figure 1 shows the percentages of inspections of WIPP shipments with no violations found for CY 2008 – CY 2013 for those states with more than 50 inspections in each year. Data for 2014 are not included in Figure 1 due to the WIPP closure and the limited number of WIPP inspection in 2014.

Figure 1. WIPP Shipments: Percentage of inspections with no violations found for states with more than 50 inspections in each year



Percentage of Point of Origin and En Route Inspections with No Violations and Violations

Tables 7A and 7B show the overall percentage of inspections having no violations and violations at the point of origin and en route for WIPP shipments for CY 2013 and CY 2014, respectively.

Tables 8A and 8B show the overall percentage of inspections having no violations and violations at the point of origin and en route for non-WIPP shipments for CY 2013 and CY 2014, respectively.

For WIPP shipments, there continues to be a general trend over time in a higher percentage of inspections finding no violations. For non-WIPP shipments the percentages are noticeably higher than for WIPP shipments for inspections finding violations. However for the non-WIPP shipments there is also an increasing trend over time in the percentage of inspections having no violations.

Table 7A. WIPP Shipments: Percentage of point of origin and en route inspections with no violation and with violations (January 1, 2013 – December 31, 2013)

Inspection Location	Number of Inspections	No Violations	Violations
Point of Origin	734	98.50%	1.50%
En Route	753	99.07%	0.93%

Table 7B. WIPP Shipments: Percentage of point of origin and en route inspections with no violation and with violations (January 1, 2014 – December 31, 2014)

Inspection Location	Number of Inspections	No Violations	Violations
Point of Origin	142	96.48%	3.52%
En Route	87	100.00%	0.00%

Table 8A. Non-WIPP Shipments: Percentage of point of origin and en route inspections with no violation and with violations (January 1, 2013 – December 31, 2013)

Inspection Location	Number of Inspections	No Violations	Violations
Point of Origin	135	97.04%	2.96%
En Route	62	95.16%	4.84%

Table 8B. Non-WIPP Shipments: Percentage of point of origin and en route inspections with no violation and with violations (January 1, 2014 – December 31, 2014)

Inspection Location	Number of Inspections	No Violations	Violations
Point of Origin	177	95.48%	4.52%
En Route	70	95.71%	4.29%

Comparison with Non-WIPP Shipments and Federal Motor Carrier Safety Administration Data

Tables 9A and 9B are the comparisons of WIPP and non-WIPP CVSA Level VI inspections for CY 2013 and CY 2014, respectively. Note that due to the lack of identification of Level I out-of-service violations in the A&I Online database there are no statistics on NAS (Level I) out-of-service violations and out-of-service violations in general (indicated in the tables by a "-"). Continuing a trend found in previous years, the percentages of inspections finding violations and the Level VI out-of-service rates are considerably larger for non-WIPP shipments than for WIPP shipments (more than double in most cases).

Tables 10A and 10B allow comparisons of CVSA Level VI inspection information reported under the WIPP transportation program to roadside inspection data for the same time periods (CY 2013 and CY 2014) from the Federal Motor Carrier Safety Administration (FMCSA).

Of the 18 WIPP inspections in CY 2013 that found violations, 6 inspections found Level VI out-of-service violations. One of these 6 inspections found a Level VI driver out-of-service violation for a Level VI driver out-of-service percent of 0.07. Five of these

inspections found Level VI vehicle out-of-service violations for a Level VI vehicle out-of-service percent of 0.34. Due to the lack of identification of Level I out-of-service violations in the A&I Online database there are no statistics on NAS (Level I) out-of-service violations and out-of-service violations in general.

Of the 5 WIPP inspections in CY 2014 that found violations, 1 inspection found a Level VI vehicle out-of-service violation for a Level VI vehicle out-of-service percent of 0.44. Due to the lack of identification of Level I out-of-service violations in the A&I Online database there are no statistics on NAS (Level I) out-of-service violations and out-of-service violations in general.

In general there continues to be a trend over time towards lower percentages of violations found and lower Level VI out-of-service rates for CVSA Level VI inspections of both WIPP and non-WIPP shipments. All rates are considerably lower than those reported by FMCSA for roadside and hazardous materials inspections during the same time periods.

It is CVSA's opinion that DOE, WIPP, the states, the carriers, and other interested parties are to be commended for the more than fifteen years of hard work and dedication that have gone into the WIPP shipping program and inspections that continue to show progress and improvement. It is important to keep up this dedication to continue insuring that the WIPP shipping campaign is as safe as possible.

Table 9A. WIPP Shipments in CY 2013: Comparison with Non-WIPP shipments

CVSA Level VI Inspection Data for WIPP Shipments (January 1, 2013 – December 31, 2013)					
Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent	
Number of Inspections	1,487				
With no Violations	1,469	98.79%			
With Violations	18	1.21%			
Driver OOS* Rate	-	-	-	0.07% (N=1)	
Vehicle OOS Rate	-	-	-	0.34% (N=5)	
CVSA L			ata for Non-WIPP SI December 31, 2013)	hipments	
Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent	
Number of Inspections	198				
With no Violations	191	96.46%			
With Violations	7	3.54%			
Driver OOS* Rate	-	-	-	0.00% (N=0)	
Vehicle OOS Rate	-	-	-	1.01% (N=2)	

^{*}OOS = Out-of-Service

Table 9B. WIPP Shipments in CY 2014: Comparison with Non-WIPP shipments

CVSA Level VI Inspection Data for WIPP Shipments (January 1, 2014 – December 31, 2014)						
Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent		
Number of Inspections	229					
With no Violations	224	97.82%				
With Violations	5	2.18%				
Driver OOS* Rate	-	-	-	0.00% (N=0)		
Vehicle OOS Rate	-	-	-	0.44% (N=1)		
CVSA L			ata for Non-WIPP Sl December 31, 2014)	hipments		
Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent		
Number of Inspections	247					
With no Violations	236	95.55%				
With Violations	11	4.45%				
Driver OOS* Rate	-	-	-	0.00% (N=0)		
Vehicle OOS Rate	-	-	-	1.21% (N=3)		

^{*}OOS = Out-of-Service

Table 10A. 2013 FMCSA inspection data

FMCSA Roadside Inspection Data for the Year 2013*			FMCSA HAZMAT Inspection Data for the Year 2013*		
Inspection Activity Number Per			Inspection Activity Number Perce	ercent	
Number of Inspections	3,507,831		Number of Inspections 203,309		
With no Violations	1,385,988	39.51%	With no Violations N/A*** N/A	L	
With Violations	2,121,843	60.49%	With Violations N/A N/A	1	
Driver OOS** Rate [†]	165,072	4.86%	OOS Rate 7,914 3.899)/	
Vehicle OOS Rate [†]	478,030	19.90%	OOS Rate 7,914 3.899	/0	

[†]The number of inspections is a combination of some Driver, some Vehicle, and some combination of both. The OOS Rate is for this subgroup of all inspections.

^{*}Data Source: FMCSA Motor Carrier Management Information System (MCMIS) June 24, 2016 data snapshot from http://ai.fmcsa.dot.gov/SafetyProgram/RoadsideInspections.aspx

^{**}OOS = Out-of-Service

^{***}N/A = Data not available

Table 10B. 2014 FMCSA inspection data

FMCSA Roadside Inspection Data for the Year 2014*			FMCSA HAZMAT Inspection Data for the Year 2014*			
Inspection Activity Number Percent		Inspection Activity	Number	Percent		
Number of Inspections	3,413,393		Number of Inspections	196,156		
With no Violations	1,363,213	39.94%	With no Violations	N/A***	N/A	
With Violations	2,050,180	60.06%	With Violations	N/A	N/A	
Driver OOS** Rate [†]	166,197	5.05%	OOS Data	7.705	3 97%	
Vehicle OOS Rate [†]	476,892	20.37%	OOS Rate	7,795	3.9/%	

[†]The number of inspections is a combination of some Driver, some Vehicle, and some combination of both. The OOS Rate is for this subgroup of all inspections.

Overall CVSA Level VI Program – WIPP Shipments

Table 11 is a summary of the Level VI inspection program for WIPP shipments through December 31, 2014 (excluding the CY 2007 data for reasons discussed at the beginning of this report). Since March 24, 1999, there have been 22,513 CVSA Level VI inspections analyzed. Of these inspections, 94.02 percent found no violations, an increase from the 93.64 percent in the sixth (CY 2010 – CY 2012) inspection report. The Level VI out-of-service rate for vehicles decreased from 1.17 percent in the sixth inspection report to 1.11 percent for this report. The Level VI driver out-of-service rate remains essentially the same at 0.01 percent. Note that due to the lack of identification of Level I out-of-service violations in the A&I Online database there are no statistics on NAS (Level I) out-of-service violations and out-of-service violations in general (indicated in the table by a "-").

Table 11. Review of entire CVSA Level VI Inspections for WIPP shipments

CVSA Level VI Inspection Data for WIPP Shipments (March 24, 1999 – December 31, 2006 and January 1, 2008 – December 31, 2014)					
Inspection Activity	Number	Percent	Level I OOS Percent	Level VI OOS Percent	
Number of Inspections	22,513				
With no Violations	21,167	94.02%			
With Violations	1,346	5.98%			
Driver OOS* Rate	ı	ı	-	0.01% (N=2)	
Vehicle OOS* Rate	ı	1	-	1.11% (N=249)	

^{*}OOS = Out-of-Service

^{*}Data Source: FMCSA Motor Carrier Management Information System (MCMIS) June 24, 2016 data snapshot from http://ai.fmcsa.dot.gov/SafetyProgram/RoadsideInspections.aspx

^{**}OOS = Out-of-Service

^{***}N/A = Data not available

Conclusions

Data for this report were obtained electronically from the A&I Online website. As noted in the previous CY 2008 – CY 2009 and CY 2010 – CY 2012 reports, there continues to be deficiencies with this data source with respect to producing this report. The shipment origin and destination are not identified, Level I out-of-service violations are not identified, and inspector comments are not provided. Some of the statistics given in the past reports are not included in this report due to this lack of information available from the A&I Online website. Shipment origin and destination, type of out-of-service violation, and inspector comments are data items on the inspection form and CVSA recommends that these items be made available on the A&I Online website.

In the process of reviewing the available data from the A&I Online website, CVSA again noted deficiencies in the reporting of inspection data similar to those found in the previous inspection reports. For example, it was discovered that 5 inspection reports entered in the database had DOE shipments coded as non-DOE shipments. These issues suggest a continuing need for care in submitting inspection data and additional emphasis for inspector training and inspection review at the state level to insure correct data are being submitted to SAFETYNET. CVSA will continue to provide Level VI inspectors with the information to address these issues.

Even with the limitations described above there are sufficient data to conclude that the violation rates from Level VI inspections remain very low over time. The ultimate goal of the CVSA Level VI inspection program is and will continue to be the safe and uneventful shipments of radioactive materials from point of origin to destination. The states, carriers, DOE, and private industry can be proud of their continued safety program excellence as supported by the overall reduction of the violation rates. The program should continue to strive for low out-of-service rates, which ultimately lead to a low number of incidents. WIPP shipments continue to be one of the safest commercial truck shipments today.

Appendix A

List of WIPP Shipment Violations - CY 2013

Unit	Inspection Date	Location	Inspection Type	Violation	Level I OOS *	Level VI OOS
Driver	5/7/2013	Inl	Point of Origin	383.51A-NSOUT - Driving A Cmv While Cdl Is Suspended For A Non-Safety-Related Reason And Outside The State Of Driver'S License Issuance.		
Driver	5/8/2013	Raton Enforcement	En Route	391.15A-SIN - Driving A Cmv While Disqualified. Suspended For Safety-Related Or Unknown Reason And In The State Of Drivers License Issuance.		Y
Driver	5/30/2013	Inl	Point of Origin	391.43H - Improper Medical Examiners Certificate Form		
Semi-Trailer	3/19/2013	Raton Mcss	En Route	393.9 - Inoperable Required Lamp		Υ
Semi-Trailer	4/11/2013	Inl	Point of Origin	393.11 - No Or Defective Lighting Devices Or Reflective Material As Required		
Semi-Trailer	6/4/2013	Nfs	Point of Origin	393.45DLPC - Brake Connections With Leaks - Connection To Power Unit		
Semi-Trailer	6/28/2013	Inl	Point of Origin	393.75A - Flat Tire Or Fabric Exposed		Υ
Semi-Trailer	9/21/2013	Inl	Point of Origin	393.9 - Inoperable Required Lamp		
Semi-Trailer	11/18/2013	Ft Collins, Co Poe Sb	En Route	396.3A1 - Inspection, Repair And Maintenance Of Parts & Accessories		
Semi-Trailer	12/12/2013	Colo 25 @ Mp 267	En Route	393.45D - Brake Connections With Leaks Or Constrictions		
Semi-Trailer	12/12/2013	Colo 25 @ Mp 267	En Route	393.45D - Brake Connections With Leaks Or Constrictions		
Truck Tractor	3/18/2013	Inl	Point of Origin	393.75C - Tire-Other Tread Depth Less Than 2/32 Of Inch		
Truck Tractor	3/18/2013	Inl	Point of Origin	393.75C - Tire-Other Tread Depth Less Than 2/32 Of Inch		
Truck Tractor	4/4/2013	Inl	Point of Origin	172.203D6 - No Fissile Radioactive Entry		

Unit	Inspection Date	Location	Inspection Type	Violation	Level I OOS *	Level VI OOS
Truck Tractor	5/1/2013	Inl	Point of Origin	396.3A1B - Brakes (General) Explain:		
Truck Tractor	5/14/2013	Inl	Point of Origin	393.45DCUV - Brake Connections With Constrictions Under Vehicle		Y
Truck Tractor	9/14/2013	Raton Mcss	En Route	393.45UV - Brake Tubing And Hose Adequacy Under Vehicle		Y
Truck Tractor	12/5/2013	Inl	Point of Origin	393.45D - Brake Connections With Leaks Or Constrictions		
Truck Tractor	12/11/2013	S/B I-25 At Mp 267 (Ftcol Poe)	En Route	393.67C7 - Fuel Tank Fill Pipe Cap Missing		
Truck Tractor	12/11/2013	Raton Mcss	En Route	393.45D - Brake Connections With Leaks Or Constrictions		Y
Truck Tractor	12/11/2013	Raton Mcss	En Route	393.9H - Inoperable Head Lamps		Υ

^{*} The A&I Online database does not provide information on NAS (Level I) out-of-service violations

Appendix B

List of WIPP Shipment Violations - CY 2014

Unit	Inspection Date	Location	Inspection Type	VIOLATION	Level I OOS *	Level VI OOS
Other	4/9/2014	Santa Fe Enforcement	Point of Origin	393.110D - Large Or Odd-Shaped Cargo Not Adequately Secured		Y
Semi-Trailer	1/23/2014	Inl		172.205 - Hazardous Waste Manifest Not As Required		
Semi-Trailer	1/25/2014	Inl		393.110D - Large Or Odd-Shaped Cargo Not Adequately Secured		
Semi-Trailer	11/17/2014	Inl	Point of Origin	396.3A1B - Brakes (General) Explain:		
Truck Tractor	1/7/2014	Inl		393.95A - No/Discharged/Unsecured Fire Extinguisher		

^{*} The A&I Online database does not provide information on NAS (Level I) out-of-service violations

Appendix C

List of Non-WIPP Shipment Violations - CY 2013

Unit	Inspection Date	Location	Inspection Type	Violation	Level I OOS *	Level VI OOS
Driver	4/2/2013	Tva Watts Bar	Point of Origin	395.3A2-PROP - Driving Beyond 14 Hour Duty Period (Property Carrying Vehicle)		
Semi-Trailer	7/30/2013	Nfs	Point of Origin	393.53B - Cmv Manufactured After 10/19/94 Has An Automatic Airbrake Adjustment System That Fails To Compensate For Wear		
Semi-Trailer	7/30/2013	Nfs	Point of Origin	393.47E - Clamp Or Roto Type Brake Out-Of- Adjustment		
Semi-Trailer	10/10/2013	Girard(Hubbard)Scales	En Route	396.3A1B - Brakes (General) Explain:		Υ
Semi-Trailer	10/16/2013	Girard(Hubbard)Scales	En Route	393.126 - Failure To Ensure Intermodal Container Securement		Y
Semi-Trailer	11/20/2013	Colorado 25 Mp 11	En Route	393.205C - Wheel Fasteners Loose And/Or Missing		
Semi-Trailer	11/20/2013	Colorado 25 Mp 11	En Route	393.47E - Clamp Or Roto Type Brake Out-Of- Adjustment		
Semi-Trailer	11/20/2013	Colorado 25 Mp 11	En Route	393.53B - Cmv Manufactured After 10/19/94 Has An Automatic Airbrake Adjustment System That Fails To Compensate For Wear		
Truck Tractor	2/25/2013	1000 Lakeside Dr Gurnee	Point of Origin	396.3A1 - Inspection, Repair And Maintenance Of Parts & Accessories		
Truck Tractor	4/10/2013	Blue Water Bridge	Point of Origin	393.9 - Inoperable Required Lamp		

^{*} The A&I Online database does not provide information on NAS (Level I) out-of-service violations

Appendix D

List of Non-WIPP Shipment Violations - CY 2014

Unit	Inspection Date	Location	Inspection Type	Violation	Level I OOS *	Level VI OOS
Driver	2/18/2014	I-294 N/B @ Plaza 41	En Route	177.801 - Accepting Or Transporting Hazardous Materials Not Prepared In Accordance With Regulations		
Driver	2/18/2014	I-294 N/B @ Plaza 41	En Route	177.804A - Failure To Comply With Fmcsr 49 Cfr Parts 390 Through 397 When Transporting Hm		
Driver	2/18/2014	I-294 N/B @ Plaza 41	En Route	392.9 - Driver May Not Operate A Cmv Without Proper Load Securement		
Driver	7/15/2014	Rutledge, Ga.	En Route	395.8F1 - Drivers Record Of Duty Status Not Current		
Intermodal Chassis	8/1/2014	Southern Division	Point of Origin	393.201A - Frame Cracked / Loose / Sagging / Broken	N **	
Semi-Trailer	2/18/2014	I-294 N/B @ Plaza 41	En Route	172.336B - Id Numbers Not Properly Displayed Other Than On Placards		
Semi-Trailer	2/18/2014	I-294 N/B @ Plaza 41	En Route	177.834A - Package Not Secure In Vehicle		Υ
Semi-Trailer	2/18/2014	I-294 N/B @ Plaza 41	En Route	393.126B - Damaged Or Missing Tiedown Or Securement Device For Intermodal Containers Transported On Container Chassis Vehicle		Y
Semi-Trailer	2/18/2014	Colo. 25 @ Mm11	En Route	393.45D - Brake Connections With Leaks Or Constrictions		Y
Semi-Trailer	4/24/2014	Blue Water Bridge	Point of Origin	393.9T - Inoperable Tail Lamp		Υ
Semi-Trailer	6/1/2014	Highgate Poe	Point of Origin	393.75C - Tire-Other Tread Depth Less Than 2/32 Of Inch		
Semi-Trailer	6/5/2014	Hanford/ Richland Wa	Point of Origin	393.55D3 - No Or Defective Abs Malfunction Indicator For Towed Vehicles On Vehicles Manufactured After February 2001		
Semi-Trailer	7/10/2014	Cambridge	Point of Origin	392.2RG - State Vehicle Registration Or License Plate Violation		

Unit	Inspection Date	Location	Inspection Type	Violation	Level I OOS *	Level VI OOS
Semi-Trailer	7/10/2014	Cambridge	Point of Origin	392.2RG - State Vehicle Registration Or License Plate Violation		
Truck Tractor	2/18/2014	I-294 N/B @ Plaza 41	En Route	393.45 - Brake Tubing And Hose Adequacy		
Truck Tractor	2/18/2014	I-294 N/B @ Plaza 41	En Route	385.403 - No Hm Safety Permit		
Truck Tractor	7/3/2014	San Juan, Pr	Point of Origin	177.817A - No Shipping Papers (Carrier)		
Truck Tractor	12/22/2014	Blue Water Bridge	Point of Origin	387.7F - No Proof Of Financial Responsibility (Mcs- 90 Or Mcs-82) - Foreign Carriers		
Truck Tractor	12/22/2014	Blue Water Bridge	Point of Origin	387.7F - No Proof Of Financial Responsibility (Mcs- 90 Or Mcs-82) - Foreign Carriers		

^{*} The A&I Online database does not provide information on NAS (Level I) out-of-service violations
** The state confirmed that the violation is not a Level I out-of-service violation