



**MOTOR CARRIER GROUP
CHAIRMAN'S FACTUAL REPORT**

**CHESTERFIELD TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY**

HWY-12-MH-007

(28 Pages)



**NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF HIGHWAY SAFETY
WASHINGTON, D.C. 20594**

MOTOR CARRIER GROUP CHAIRMAN'S FACTUAL REPORT

A. ACCIDENT

Type: School Bus, Roll-Off Truck Intersection-Related Accident
Date and Time: February 16, 2012 8:15 AM. EDT
Location: Bordentown-Chesterfield Rd (Burlington County Route 528) and
Old York, Rd (Burlington County Route 660) Chesterfield Township, Burlington County,
New Jersey
Vehicle #1: 2012 International 54-Passenger School Bus
Motor Carrier #1: Garden State Transport Inc.
Vehicle #2: 2004 Mack Granite Roll Off Truck
Motor Carrier #2: Herman's Trucking, Inc.
Fatalities: 01
Injuries: 18

NTSB #: HWY-12-MH-007

B. MOTOR CARRIER GROUP

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Peter Brunt Owner – GST Transport Corp.

Marilyn Stelljes - Owner – Herman's Trucking Inc.

Sgt. Lawrence Higgins - New Jersey State Police

C. ACCIDENT SUMMARY

See Docket Item #1 – Accident Summary

D. INVESTIGATIVE SUMMARY

The following areas of investigation are included in this factual report:

1. School Transportation Carrier's
 - a. Carrier Operational History
 - b. Fleet Information
 - c. Hiring Practices and Training
 - d. Accident Driver Information
 - e. Accident Route
2. Trucking Company
 - a. Carrier Operational History
 - b. Hiring and Training
 - c. Vehicle Maintenance Records
 - d. Accident Driver Information
 - e. Solid Waste Transportation
 - f. Construction Contracting Information
3. School Contracting and Bus Routing Information
4. New Jersey Commercial Motor Vehicle Oversight
 - a. Motor Vehicle Commission
 - b. New Jersey State Police
 - i. State Regulations
 - ii. Federal Regulations

E. DETAILS OF THE INVESTIGATION

1. Garden State Transport (GST) Corporation

a. Operations

The carrier began business operations in the early 1980's as an International Harvester sales and parts and repair company. The parts and repair were separate companies but under a common ownership. In the early 1990's the owner added a pet supply business that continues today. The company started a pupil transportation (school bus) operation in the 1997/1998 school year. They do provide out-of-state (typically Pennsylvania, New York City, and Delaware) transportation for school extra-activity. The owner said they make about 25 interstate trips per year however the number is decreasing due to budget cuts at the school districts. Therefore, the company is registered with the Federal Motor Carrier Safety Administration (FMCSA) with USDOT # 965318 and is classed as an "exempt for-hire carrier"¹ and no MC#.²

¹ See US Code 49 USC 13506 (a) and Title 49 Code of Federal Regulations Part 387.27(b)(4) An exempt for-hire motor carrier means a person engaged in transportation exempt from economic regulation by the Federal Motor Carrier Safety Administration under 49 U.S.C. 13506. "Exempt motor carriers" are subject to the FMCSA's safety regulations. Part 387.27(b)(4) provides for an exemption from the minimum levels of financial responsibility for 'for-hire' carriers engaged in transporting school children in other than "school

SAFER³ and SMS⁴ data⁵ indicate that the most recent MCS-150 form was submitted to the FMCSA on 6/25/2009. It indicated the company's total annual mileage was approximately 4,317,958. SAFER indicated that the carrier was subject to 6 roadside inspections in the 24 months prior to 02/17/2012. Of these inspections 4 were Vehicle inspections that resulted in 0 per cent out-of-service violations as compared to the national average of 20.72 per cent and 6 were Driver inspections with 0 per cent out-of-service violations as compared to the national average of 5.51 percent. SAFER indicated that the carrier had a total of 7 recordable accidents⁶; 6 of the 7 accidents resulted in injuries and 2 of the accidents resulted in one of the vehicles was towed-away in that same 24 month period.

The carrier has been subject to three oversight reviews: a Compliance Review 10/06/2011⁷ – Satisfactory rating⁸; a Compliance Review on 02/25/2011⁹ - Conditional rating; and a Non-Rated Review on 7/11/2001.¹⁰

The company received a warning letter from FMCSA dated 11/16/2009 indicating they had an unacceptable score in the Crash Indicator of their BASIC scores.¹¹

As a result of the 02/25/2011 Compliance Review, the company was fined \$17,210 for violations of 382.305(b)(1) – Failure to meet the required percentage of employees for alcohol testing and 382.305(b)(2) – Failure to meet the required number of employees for controlled substance testing. This Notice of Claim (NOC) was satisfied on 11/09/2011¹²

As a result of the 10/06/2011 Compliance Review the company received a NOC – fine, for \$7,270 for violation of 386.83(a)(1) – Failure to pay a civil penalty (from the 02/25/2011 Compliance Review). The review noted that as a result of the non-payment of the 02/25/2011 Compliance Review NOC the carrier had received a 'cease all interstate operations' notice on 07/11/2011. However the carrier violated this interstate OOS order on 08/23/2011 when the carrier made a trip to Philadelphia PA. The NOC for \$7,270 was in litigation as of the writing of this report (01/30/2013).

bus operations". Therefore, GST is classed as an exempt for-hire carrier and not required to obtain operating authority and an MC # cannot be issued.

² A MC# is the reference number assigned by the FMCSA to indicated a carrier's operating authority.

³ Safety and Fitness Electronic Records (SAFER) System See www.safersys.org

⁴ Safety Management System

⁵ See Attachment #1A – GST Company Information

⁶ A recordable accident is defined in 49 Code of Federal Regulations (49CFR390.5) as (1) an occurrence involving a commercial motor vehicle operating on a highway in interstate or intrastate commerce which results in: (i) A fatality; (ii) Bodily injury to a person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident; or (iii) One or more motor vehicles incurring disabling damage as a result of the accident, requiring the motor vehicles to be transported away from the scene by a tow truck or other motor vehicle. Also see 49 CFR 385 Appendix B and Footnote 38 of this report.

⁷ See Attachment #2 – 10/06/2011 Compliance Review

⁸ **Safety ratings:** (1) **Satisfactory** safety rating means that a motor carrier has in place and functioning adequate safety management controls to meet the safety fitness standard prescribed in §385.5. (2) **Conditional** safety rating means a motor carrier does not have adequate safety management controls in place to ensure compliance with the safety fitness standard that could result in occurrences listed in §385.5 (a) through (k). (3) **Unsatisfactory** safety rating means a motor carrier does not have adequate safety management controls in place to ensure compliance with the safety fitness standard which has resulted in occurrences listed in §385.5 (a) through (k). (4) **Un-rated** carrier means that a safety rating has not been assigned to the motor carrier by the FMCSA.

⁹The CSA comprehensive investigation is similar to the traditional Compliance Review with the addition of finding the root cause of the safety problem to facilitate the corrective action. See Attachment #3 – 2/25/2011 Compliance Review

¹⁰ There is no information in the FMCSA database on this "non-rated" review. See Attachment #2C – MCMIS Report 7/11/2001 Non-Ratable Review

¹¹ This letter was sent as part of the CSA 2010 testing by FMCSA. New Jersey was one of the four original test states that also included Colorado, Georgia, and Missouri. See Attachment #3B

¹² See Attachment #3B – 02/25/2011 Compliance Review Documentation

At the time of this investigation the carrier was not exceeding any of the seven BASICS thresholds found in the SMS database.¹³

The carrier was subject to a post-accident Compliance Review on February 17, 2012 conducted by the New Jersey State Police.¹⁴ The result of the review was a “Satisfactory” rating. The review noted some violations, none of which resulted in a less than satisfactory rating in each of the 6 rating categories.

On the day after the accident the New Jersey Motor Vehicle Commission (NJMVC) conducted an inspection of the carrier’s fleet. This inspection was a pre-scheduled unannounced inspection and was not directly associated with the accident from the previous day. During this inspection all the carrier’s vehicles were inspected according the NJMVC’s inspection criteria and procedures. (See New Jersey Oversight Section below.)

b. Fleet Information

The company operated with 242 school buses and 239 drivers. They employ 7 F/T mechanics and 1 P/T mechanic. All mechanics are experienced and the carrier maintains a qualification for each mechanic with their certifications on file. All school buses were equipped with lap seat belts in each seating position.¹⁵ There are four locations of operation: the main terminal in Southampton NJ and three outlying yards¹⁶, one with a maintenance shop and two without a maintenance shop however this location is visited by a part-time mechanic to repair items as needed. The carrier is a non-union shop. Bus drivers were assigned a bus that they drove all year long and potentially for several years. Drivers were also assigned the same routes each year.

Seventy-five schools buses in the fleet were equipped with a global positioning system (GPS) device and the company has 2 portable GPS devices that they install secretly on various bus throughout the year to monitor driver activity. The carrier has a target of installing GPS devices in all his vehicles within the next three years. Also the carrier has installed cameras in 65 of the buses. These cameras have both visual and audio capability and are aimed rearward to record passenger activity. They were on a 24-hr. continuous loop and record up to 30 days of information. At that time the cameras ‘record over’ the previous data one day at a time. These cameras were installed on only specified buses at the request of certain school districts. The driver can manually activate a button that “notes” a specific occurrence on the recording disc for later retrieval. The accident school bus was not equipped with a camera or with a GPS device.

The carrier indicated that they operate approximately 500 school routes for about 41 school districts in southern New Jersey that include independent and regional school districts in Burlington, Camden, Mercer, Monmouth, Ocean, Warren, and Sussex Counties. School transportation is provided via a bid process. (See the School Contracting Section below.) Each contract is for a 12-month time period that is renewable each year without a new bid process. The carrier had bid the routes published by the Northern Burlington County Regional School District on May 12, 2011 and was awarded the contract on May 17, 2011.¹⁷ The routes covered the following school districts:

¹³ See Attachment #1 - CSA BASICS and Thresholds

¹⁴ See Attachment #4 – Post-Accident Compliance Review

¹⁵ See New Jersey Statutes Title 39 Section 39:3B-10. Students are required to wear the provided seat belts, however the school bus company and driver are not held liable when a child does not wear the seat belt. Also see New Jersey Statute 39:3B-11.

¹⁶ Robinson NJ – 19 vehicles and drivers, Freehold NJ – 38 vehicles and drivers, Warren NJ – 23 vehicles and drivers.

¹⁷ See Attachment #5 – School – GST Bid Contract.

- Chesterfield,
- Mansfield,
- Springfield, and
- North Hanover (including McGuire Air Force Base and Fort Dix Army Base for 7 – 12 grades only).

School bus service for the accident route was contracted through the Northern Burlington County Regional School District that represented these school districts.

Drivers are required to perform a pre- and post-trip inspection of their vehicles. The drivers complete a form developed by the company. Defects are noted on the form and submitted to a company mechanic for repair. The mechanic completes a maintenance form noting the defects, when repaired and signs and dates the form. Neither the post-trip nor the repair form is placed back in the vehicle. The company believes that because each driver drives the same vehicle daily, that when the vehicle is returned to service (usually the next day) the driver will know that the repair has been made when they complete the pre-trip inspection. This process is contrary to the procedure found in 49 CFR 396.11 and 396.13 that requires the inspection report indicating the defect be signed by the mechanic when repaired and then returned to the vehicle for verification by the driver at the next pre-trip inspection.¹⁸

The carrier has a regularly scheduled preventive maintenance (PM) program based on the manufacture's recommended mileage intervals.

(For specific mechanical information about the accident school bus, see the Vehicle Factors Group Chairman's factual report.)

c. Hiring Practices and Training

1) Hiring Practices

The carrier's hiring practices include:

- Submit an application
- Owner conducts a face-to-face interview
- Applicant must be (at least) 25 years of age
- Carrier does not age discriminate
- Must have a "relatively clean" driving record ("relatively clean" means that owner looks for recent violations and accidents on the applicant's record, however the records does not have to be totally void of citations, accidents, or arrests.) State rules regarding driver background information is found in the Contracting Section below.
- Applicant must pass a pre-employment drug and alcohol test.
- Driver must submit fingerprints for a criminal history check.
- Applicants need not have a commercial driver's license (CDL) at the time of application. The accident driver did not have a CDL at the time of application. The CDL must include a "P" (passenger) and "S" (school bus) endorsement. The applicant must pass a Department of Transportation (DOT) required medical examination.

¹⁸ See Title 49 Code of Federal Regulations (CFR) 396.11 and 396.13 for the Federal Pre- and Post-trip inspections procedures. New Jersey has adopted the Federal Motor Carrier Safety Regulations (FMCSRs) including Part 396.

Drivers are paid by the route.

2) Training¹⁹

Once hired a driver receives carrier training on the operation of the school bus they will be driving and all other buses in the fleet that they may drive later. They also receive training on the twice-per-year school bus evacuation drills for which all school bus drivers are required to conduct in cooperation with the school administration.²⁰

Drivers are required by the company to drive the route in the bus they will be using on that route prior to the school year and before they actually pick-up and transport students.

The company provides limited in-service training, once every two years and at the start of each school year. The training material consists of discussions and videos from their insurance company (Lancers) that includes the following topics:

- Special Needs
- No Child on Bus
- Equipment on Vehicle
- Defensive Driving
- The published dates are from 1989 to 2003.

Drivers are provided an Employee Handbook with the company's standard operating procedures when they are hired.²¹

- There is a policy prohibiting the use of cells phone while driving a school bus.
- Buses are equipped with a two-way radio for communication with the terminal.
- There is no written seat belt policy for the driver.
- The Handbook also requires that "...rules pertaining to your specific run, read your REGIONAL DISTRICT DRIVER'S HANDBOOK."

The Northern Burlington County Regional School District offers GST drivers quarterly training as part of the training received by the District's school bus drivers; however, usually only 4 of the GST drivers participate. These training sessions cover a variety of school bus transportation-related subjects, including a defensive driver's course. Northern Burlington County Regional School District's drivers receive a driver's handbook when hired which is also available to the GST drivers.²² The Handbook makes no specific policy reference to:

- Driver Seat Belt Use, or
- Driver Cell Phone Use.

¹⁹ See New Jersey Department of Education Oversight Section in this report for additional training requirements.

²⁰ School Bus Evacuation Drills are held at a school when the bus drops off the students. Students are directed by the school bus driver, assisted by school staff, to exit the vehicle by opening the emergency exit doors. Older students open the doors and assist younger students out of the bus. Emergency window and overhead emergency hatches are discussed, but not operated. See New Jersey Statute 6A:27-11.2

²¹ See Attachment #6 – GST Standard Operating Procedures

²² See Attachment #7 - Northern Burlington County Regional School District's Driver's Handbook

Both the GST and the Northern Burlington County School District's handbooks make reference to obeying all New Jersey traffic laws.²³

d. Accident Driver Information²⁴

The accident driver held a valid New Jersey Class "B" CDL with a current DOT medical examination certificate. The medical certificate was valid for one year. The license included a "P" and "S" endorsement and a restriction for not driving an air-brake equipped vehicle.

The driver passed the Department of Motor Vehicles (DMV) written tests for the general CDL class "B" license, the tests for the "P" and "S" endorsements." He received his "hands-on" bus driver training from GST and took the road driving test in a GST supplied school bus. He was issued his CDL on 1-26-2012 and successfully passed his pre-employment drug and alcohol test on 2-6-2012. He completed his DOT physical examination on 1-10-2012. It is due to expire on 1-10-2013.²⁵ (See the Human Performance Group Chairman's factual report for further information.)

The company conducted an inquiry into the driver's driving history on 01/30/2012 from a private company. The results of that review and the NTSB review of the driver's driving history both showed that he had received a traffic citation in March 2007 for "Obstructing Passage of Another Vehicle" and a related traffic accident on the same day. He had no suspensions or revocations. He also had a restriction requiring him to wear corrective lenses while driving.

The driver's application for employment at GST indicated that his previous employment included working as an "ironworker" from 1978 to his retirement in 2007; as a "production foreman" from 1967 to 1978; and a "counterman and driver" from 1963 to 1967. The driver indicated that he needed some additional income to supplement his retirement pay and saw the GST advertisement in the local newspaper for the school bus driver position and applied for the job. He applied for the job on August 30, 2011 and was hired on January 30, 2012.

When he was hired he rode with an experienced driver for 3 days and then was on his own. GST provided him with the route he was to travel and the address stops he was to make. Also included in the instructions were the turns he had to make called the "L" and "R" route sheet.²⁶ He continued to drive the bus until the accident date.

2. School Contracting and Bus Routing Information

Pupil transportation in New Jersey is regulated at three levels: (1) State Department of Education, (2) the County level of State Department of Education, and (3) the local school district or regional school district.

²³ See New Jersey Administrative Code (NJAC) 6A:27-12.1 (d) – "School bus drivers shall wear a properly adjusted and fastened seat belt." and 39:3B-25 – "a. It shall be unlawful for the driver of a school bus, as defined in R.S.39:1-1, to use a cellular or other wireless telephone while operating the school bus. b. The prohibition contained in subsection a. of this section shall not apply: (1) when the school bus is parked in a safe area off of a highway; or (2) in an emergency situation. Also see Attachment #8 - Excerpt from *New Jersey Commercial Driver License Manual* section on seat belt use and distract driving.

²⁴ See Attachment # 16 – GST Driver Information

²⁵ DOT physical examination is valid for 2-years per 49 CFR 391.45. However the examining person may require a lesser time period if he/she determines there is a medical condition that requires close monitoring.

²⁶ See Attachment #10 - Route Information

a. State Department of Education

The State Department of Education (DOE) establishes the regulations detailing the requirements for providing pupil transportation by the local school districts and for private contractors. A sample of topics covered in their publication *Contracting Student Transportation Services*, include:

- Bidding Requirements
- Specifications [for school buses]
- Bid Methods and Documents
- Bid Advertisement
- Bidder's Responsibilities
- Award of Contract
- Parental Contracts
- Renewal [of] Contracts
- Cancellation of Contract
- Submitting Transportation Documents

The Department also establishes broad areas of school bus driver training that each employer must administer to each school bus driver. These areas are:²⁷

- Student management and discipline
- School bus accident and emergency procedures
- Conducting school bus emergency exit drills
- Loading and unloading procedures
- School bus stop loading zone safety
- Inspecting the school vehicle for students left on board at the end of a route
- The use of student's education records, including the employee's responsibility to ensure the privacy of the student and his or her records, if applicable
- Safety education for school bus drivers which includes defensive driving techniques and railroad crossing procedures

The rule does not however establish the length of the training in any of the categories, the frequency of the training, or the timing of the training as it relates to the employment of the school bus driver (i.e. certain training should be conducted within a certain time frame of the beginning of employment).

The State DOE establishes that K-8 students living 2 miles or more from the school at which they attend qualify for school bus services and 2 ½ miles for students in grades 9 – 12. Funding for such transportation is based on the number of students determined to live these distances from the school and not on actual ridership. However, districts plan to maximize ridership and so calculate the number of buses it will take to transport those students. The number of buses used is adjusted throughout the year as ridership changes.

The DOE reviews each contract and approves them for funding.

²⁷ See Attachment #9 – Excerpts From Various School Transportation Regulations

School Bus Specifications

Specifications for school bus construction and equipment are promulgated by the State Department of Education in NJ Statute 13:20A with a reference to the *National School Transportation Specifications and Procedures*.²⁸ Additional school-related regulations are found in NJAC 6A:27 – Student Transportation and NJSA 18A Education.²⁹

New Jersey requires the installation and use of seat belts by student riding in all school buses.

“In addition to the requirements in Federal Motor Vehicle Safety Standard No. 222 (49 CFR s.571.222) concerning school bus passenger seating and crash protection, each school bus as defined in R.S.39:1-1 shall be equipped with seats of a minimum seat back height of 28 inches, or 24 inches as measured from the seating reference point, and seat belts of the lap belt type for each seating position on the bus or other child restraint systems that are in conformity with applicable federal standards. The design and installation of seat belts or other child restraint systems that are in conformity with applicable federal standards shall conform to the regulations promulgated by the State Board of Education, in consultation with the Director of the Division of Motor Vehicles in the Department of Law and Public Safety. The State board shall promulgate regulations, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), for the design and installation of seat belts or other child restraint systems that are in conformity with applicable federal standards.” NJSA 39:3B-10.

And

“...each passenger on a school bus which is equipped with seat belts shall wear a properly adjusted and fastened seat belt or other child restraint system that is in conformity with applicable federal standards at all times while the bus is in operation. Nothing in this section shall make the owner or operator of a school bus liable for failure to properly adjust and fasten a seat belt or other child restraint system that is in conformity with applicable federal standards for a passenger who sustains injury as a direct result of the passenger's failure to comply with the requirement established by this section.” NJSA 39:3B-11

Special note should be taken that students are required to wear the seat belts but the bus driver is not held liable if they don't. According the owner of GST, seat belts are placed over the back of each seat so that they can be seen by the bus driver at the beginning of each trip. Students remove the seatbelts from the seat backs and that is the only indication that the bus driver may have that a student is using the seatbelt. However, due to the high seatbacks drivers cannot be sure that students are actually using the belts. Students are requested to wear their seatbelts when they enter the bus by the bus driver. The owner of GST also said that seatbelt compliance is high among the younger students, but the high school students rarely wear the seat belts.

School buses are generally required to be retired after 12 years of use. School buses of a transit type and are over 25,000 lbs. GVW may be used for 20 years.³⁰

²⁸ See *National School Transportation Specifications and Procedures*, Missouri Safety Center, Central Missouri State University, Warrensburg, MO, 2010.

²⁹ See Attachment #11 - New Jersey Statutes 18A Education, Attachment #12 - New Jersey Administrative Code 6A:27, and Attachment#13. – Types of School Buses

³⁰ See NJAC 6A:27-7.4

b. County Office of the State Department of Education

The County offices of the State Department of Education are responsible for more closely assisting and monitoring the pupil transportation in their County. The State DOE Transportation representative at the County level assists the school districts in formulating and implementing their pupil transportation programs including contracting for transportation services from private contractors.

c. Northern Burlington Regional School District

The Northern Burlington Regional School District is a consolidation and cooperative effort of the five school districts mentioned above to provide a centralized school facility for middle school and high school education. The five school districts are primarily responsible for pupil transportation in grades K – 8 and the Regional School District is primarily responsible for pupil transportation for students in grades 9 – 12. However, the Transportation Director for the Regional District assists the independent school districts with their transportation needs at the local level.

The Regional Transportation Director was responsible for the contracting of GST for the accident route. The Regional High School has their own pupil transportation unit consisting of 37 buses and 33 F/T drivers and 11 P/T drivers. However, this is not enough to cover all the routes necessary. The School District is responsible for the following routes:

	<u>District run routes</u>	<u>Contract – GST routes</u>
K – 6 th grade	13	14
7 th – 8 th grade	15	9
9 th – 12 th grade	10	8

In 2011 GST won the bid for the Regional routes (as well as several routes for other local school districts) and was therefore given first consideration when the school district had to replace the District's driver on the accident route.

Routing is conducted by the Burlington County Regional School District's Transportation Supervisor. From a list of student residences the supervisor uses a commercially available routing computer program to assist in plotting the bus routes along with advice from her staff and from the contractor. Routes are modified throughout the year, as necessary, to accommodate new and departing students and to ensure efficient use of bus and fuel resources. Routes are then transmitted to the contracting school bus companies and modified further if needed.

➤ Northern Burlington County Regional School District – GST Contract Provisions

Below is a partial list of conditions found in the School District – GST contract;

1. Vehicles shall be properly registered with the NJ Motor Vehicle Commission.
2. Vehicle specifications must be in accordance with Federal and State law and the rules of the Board of Education
3. Contractor must immediately report all accidents involving school buses
4. Drivers must possess all required qualifications and be of good character
5. Drivers are to be in charge of the school bus and manage students during transportation
6. Contractor must carry a minimum of \$5,000,000 insurance and an additional \$1,000,000 in uninsured driver coverage.

7. The contractor shall ensure that drivers are properly trained to perform their duties.³¹
8. The contractor shall administer a safety education program for all permanent and substitute drivers.³²
9. The contractor shall conduct background checks of all drivers per NJSA 18A:39-17 through 20 and conduct drug and alcohol testing on drivers as required

d. Accident Route

The Regional School District had been covering the accident route CH-04 for 9 years when the regular driver became medically unqualified to drive a school bus. The District operated the route with a temporary substitute driver until January 17 2012. The District issued a request for a temporary bid on route CH-04 prior to January 17 and GST won the bid. The GST driver (not the accident driver) began to operate the route on January 17. However, a school district school bus driver lodged a complaint with the school district bus driver's union that the route had not been properly posted for school bus drivers to bid on that route. The District rescinded the GST contract on January 20th and allowed the District school bus driver who had lodged the complaint to drive the route. That driver drove the route on January 23rd and 24th, and then refused to drive the route again; he said he just didn't like the route. The route was re-assigned to GST on January 25. This is when the accident driver began to drive the route as the regular driver.

The accident driver was on Route CH-04 AM transporting elementary school-aged children from their homes to the Chesterfield Elementary School, 30 Saddle Way, Chesterfield, NJ, about 1 mile from the accident site. This route was contracted through the Northern Burlington County Regional School District. The route started about 7:55 am (first stop\pick-up) and was scheduled to arrive at school at 8:15 am. The driver was provided route information including a "Left – Right" instructions (where to make a left or right turn) by the carrier. The route information included addresses at which to stop and a preliminary seating chart for elementary students.³³ The driver had made 25 stops prior to the accident with 25 children on board. The driver had 3 additional stops to make before arriving at the elementary school.

The Regional School District Transportation Supervisor said that she had not received any complaints regarding the GST bus driver until after the accident.

3. Herman's Trucking Company

a. Landscaping Operations

The carrier began operations in 1973 by the parents of the current owners (brother and sister) as a private and for-hire interstate carrier and as a construction company. They started with one truck. In 1985 they expanded the company to include landscaping and transported rock, soils, and other landscaping materials. They currently employ 23 drivers and operate 21 vehicles. Drivers and vehicles are used in both (landscaping and recycling) operations of the company.

³¹ The training is not specified in either content or time

³² The content of the safety education is not specified

³³ High School Students are not assigned seats. All lower grade students are assigned seats although they may not always stay seated in them as the trip progresses.

The company was registered with the FMCSA as a for-hire and private carrier of building materials, general freight, machinery, construction and landscaping materials. They are registered with the FMCSA with a USDOT #354713 and an MC #292150. The SAFER and SMS³⁴ database indicates that the company was subject to 25 roadside inspections in the 24 months preceding February 17, 2012. These inspections included 14 Vehicle inspections that resulted in 2 out-of-service violations for a total of 14.3 per cent as opposed to the national average of 20.72 per cent and 25 Driver inspections with 0 out-of-service violations for a total of 0 per cent as opposed to the national average of 5.51 percent. They had no hazardous materials inspections. The company was involved in three recordable collisions in the same 24 month period: 2/15/2012, 2/23/2011, and 9/03/2011. These include one fatal accident, one injury accident and one tow-away accident. These do not include a minor non-reportable accident on 4/20/2010 and the current fatal accident in this investigation.

The company was previously subject to Compliance Reviews³⁵ on:

3/27/2006 – Satisfactory Rating
1/25/2001 – Satisfactory Rating
10/3/1996 – Satisfactory Rating

On October 7, 2011 the FMCSA sent a warning letter³⁶ to the company indicating that their “Crash Indicator” BASIC was at an “unacceptable level”. The letter also indicated that the FMCSA would “...continue to assess [their] regulatory compliance...on a monthly basis” and would also “...evaluate [their] safety performance through increased roadside inspections...”

The company was subject to a post-accident Compliance Review conducted by the New Jersey State Police that concluded on 3/7/2012 in which they received a Conditional rating.³⁷ The review noted the following areas that needed improvement:

- Part 391 – Driver Qualifications
- Part 392 – Driving of Motor Vehicles
- Part 395 – Hours of Service
- Part 396 – Inspection, Repair, and Maintenance of Vehicles
- Recordable Crash Rate³⁸

However, none of the areas noted as ‘needing improvement’ rose to the level of ‘conditional’ or ‘unsatisfactory’ in the rating system, with the exception of the crash rate. Of the six rating factors, only the Crash Rate, Factor 6, was found “unsatisfactory” due to a crash rate of 2.84. According to Appendix B of 49 CFR 385 II (b) - (Accident Factor), Crash Rates below 1.5 are rated “satisfactory” – Crash Rates above 1.5 are rated “unsatisfactory”.³⁹

Because this was the only Factor rating that was not “satisfactory”, the overall rating was determined to be “Conditional”.

³⁴ See Attachment #14 – Herman’s Trucking SAFER and SMS Information

³⁵ See Attachment #15B – Herman’s Trucking 2006, 2001, and 1996 Compliance Reviews

³⁶ See Attachment #17 – FMCSA Warning Letter

³⁷ See Attachment #15 - Herman’s Compliance Review 3/07/2012

³⁸ Crash Rates are a ratio of recordable accidents to the number of million miles driven in one year by all company vehicles.

³⁹ There is a variation for urban carriers that do not travel more than a 100 air mile radius from their terminal. For these carriers the acceptable crash rate is 1.7 per million miles traveled.

During the post-accident Compliance Review the New Jersey State Police conducted inspections of 17 of the carrier's vehicles. Only one OOS violation was found (a taillight out), that was repaired on-site.

The company contracts with New Jersey for snow plowing services in the winter. The State notifies the company when they need their services and how many vehicles are needed and where. A clause in the contract requires the trucks designated for snow removal must be equipped with snow plow apparatus on the front of the vehicle continuously between November 1 and April 30. The accident vehicle was one of 10 company vehicles so designated and equipped.⁴⁰

The company operated 6 days per week, Monday through Saturday, and is open at 6:00 am and closes when the last vehicle returns from a job.

b. Recycling Operations

In 1995 they began a recycling company to recycle various construction and landscaping materials. The recycling facility is located immediately adjacent to the landscaping facility. The company is registered with the New Jersey Environmental Protection Agency under the Solid Waste Management ACT (N.J.S.A. 13: 1E-1) as a Class B recycling facility to handle concrete, asphalt, brick, block, wood stumps, tree branches, and limbs.⁴¹ The company uses their own vehicles⁴² for hauling the recycling material from a generator to their own facility. The hauling of this type of material also qualifies by definition of 'Solid Waste'. As such they must also register as a solid waste hauler. The license issued to solid waste hauler is designated as A-901 and transporters of solid wastes must comply with a complex set of regulations. However, because the company does not generate the waste and only transports it to their recycling facility they qualify for an exemption from many of the regulations and are classified as a "A-901 Exempt" transporter.⁴³

It was the recycling operation that was conducting the transportation of asphalt at the time of the collision as part of their recycling business. (See *Construction Contracting Section* below.)

c. Hiring Procedures and Training

Applicants are required to possess a Class "A" or "B" CDL and current medical card. The carrier prefers at least 2 years of dump truck operation experience. They also desire a "clean" driving record. An applicant must complete an application, pass a carrier monitored road test, and a clearance letter from the company's insurance company (who obtains and reviews the applicant's driving history). A new hire is required to ride with an experienced driver for one or two weeks for evaluation. The carrier uses the services of a private company for conducting an applicant's background investigation and also for business/safety consulting.

Training is provided once per year by the consulting company and covers various safety topics, the most of which was the provisions of the FMCSA's new CSA monitoring program. The driver was provided a single sheet of paper with the company policies briefly enumerated as:

- Beware of Distractions When You Drive that include

⁴⁰ See Attachment #18 – Excerpt from NJ Snow Plow Guide. Also see Photographs #1 and #2

⁴¹ See Attachment #19 - Herman's Recycling Registration Information

⁴² The company uses their own vehicles for both the landscaping and recycling operations.

⁴³ See Attachment #20 - New Jersey *Solid & Hazardous Waste Transporter "Quick Access Guide"*. Also See Photo# 3 - Exempt sticker on accident truck.

- Talking on a cellular phone
- Tuning a radio or CD player
- Applying makeup
- Talking to other passengers
- Tending to children or pets
- Eating and drinking
- New Jersey bans the use of handheld cellular phone while driving
- Driving requires your full attention

The company experiences a very low turn-over rate in employees – about 1 per year.

Drivers are paid either by the hour or by a percentage of the load. Drivers that drive several short distance loads are paid by the hour and long distance drivers are paid a percentage of the load. They employ two full-time mechanics and the brother\owner also serves as a mechanic. A review of the mechanic's qualification file shows they are qualified, per 49 CFR 396.19 and 396.25.

d. Fleet Information

They have 21 vehicles including; 4 truck-tractor semitrailer units, two 2-axle straight trucks, one 3-axle straight truck, twelve 4-axle dump trucks, one flatbed truck, and one roll-off vehicle. These include 3 – Internationals, 1 Ford, and 17 Mack trucks.

Herman's purchased the roll-off truck new in November 2003 as an incomplete vehicle, or chassis.⁴⁴ The manufacturer's certification that the vehicle met the Federal Motor Vehicle Safety Standards (FMVSS)⁴⁵ when constructed indicated that the gross vehicle weight rating (GVWR) of the vehicle was 67,360 lbs. Immediately after they purchased the truck they contracted with American Roll-Off Company to add a 4th axle. This axle could be retracted upward mechanically when empty and put lowered pneumatically when loaded to increase the load carrying capacity of the vehicle. This axle had a GAWR of 20,000 lbs. giving the truck a total GVWR of 87,360 lbs. The company then registered the truck at the State maximum GVWR of 80,000 lbs.⁴⁶

Eighteen of these vehicles travel out-of-state on occasion to Pennsylvania, Delaware and Maryland. They employ 20 full-time drivers. Each driver is assigned and drives the same vehicle daily. The accident driver was the designated roll-off vehicle driver, and when not driving the roll-off truck he drove a three-axle dump truck.

e. Vehicle Maintenance

Vehicles are required to be inspected annually per 49 CFR 396.17 and records indicated they were so inspected. Drivers were required to conduct a pre- and post-trip inspection of their vehicles and note any defects on the inspection form. The mechanics repaired defects as needed.

The vehicles receive periodic maintenance per the manufacturer's recommended mileage depending on the vehicle make and model and their own analysis of the engine oil. At each service interval the vehicles received an oil change, check of the tires, suspension, brakes, and lights. Each vehicle was lubed every 2 weeks when being used.

⁴⁴ See Vehicle Factors Group's Factual Report for additional details.

⁴⁵ See 49 CFR 571 Part 567.4

⁴⁶ See Attachment #21 - Vehicle Identification and Registration

For a more detailed discussion of vehicle maintenance see the Vehicle Group Chairman's factual report.

f. Accident Driver Information

The accident driver held a valid New Jersey Class "A" CDL issued in 2010 and was due to expire in 2013 and a current medical certificate issued in March 2010 and was due to expire March 2012.⁴⁷

When the driver applied for the truck driving position in 2010, the company requested an abstract of the driver's driving history from the New Jersey Division of Motor Vehicles. They provided an abstract that covered the previous 5 years record and that indicated there were no restrictions and no endorsements on his license. The history also indicated no traffic violations and one traffic accident in September 2006 (no fault noted). In the post-accident driver investigation, the trucking company again queried the driver's driving history on 2/17/2012 and received the same results.

The NTSB obtained a 'Certified Driver Abstract' from the Motor Vehicle Commission that contained the following entries:

- 09-21-2006 – Accident
- 02/02/2004 – Restored License Privilege
- 11-13-2003 – Violation – reckless driving – 90-day license suspension
- 11-01-2003 – Completed Defensive Driving Course
- 07-04-2003 – Violation – reckless driving
- 10-31-1997 – Violation – speeding
- 03-29-1991 – Accident
- 01-11-1991 - Accident

He was first employed by Herman's trucking in 2002 as a general laborer. He eventually was hired as a truck driver (date unknown) and worked for them until 2007. He then went to work as a dump truck\roll-off driver for another trucking company for two years and returned to Herman's in 2009.⁴⁸

The driver worked 5 days per week, with an occasional Saturday work day. In the week before the accident the driver worked 5 days and then on Saturday for 1½ hours. He is the only roll-off truck driver for the company. His work day starts about 6:30 am and he works between 9 and 10 ½ hours per day. He is paid by the hour.⁴⁹

The driver had been subject to two drug and alcohol tests while employed by Herman's; 01/14/2010 – Pre-employment and 08/13/2010 – Random – both with negative results.

g. Construction Contracting Information

The company subcontracted to Wyndham Construction Company of Blackwood NJ to haul roadway material from a New Jersey Turnpike roadway construction site. Wyndham was a subcontractor to South State Inc. of Bridgeton NJ, who was the major contractor to the State for the construction job.

⁴⁷ See Attachment #22 – Herman's Accident Driver's Driving History

⁴⁸ See Attachment #23 – Excerpts From Herman's Accident Driver's Qualification File

⁴⁹ See Attachment #24 – Herman's Accident Driver's Time Records

Herman's contract called for them to take a number of empty roll-off bins to the construction site, about 9 miles from the terminal, and leave them there.⁵⁰ The employees of Wyndham would fill the bins and notify Herman's when they were full and Herman's would send the roll-off truck to pick them up and leave empty bins to be filled.

The roll-off truck has rails mounted on the back of the truck frame with a steel cable winch and hook attached. The metal bin measured 262-inches-long, 87-inches-wide, and 41.75-inches-deep and was rated for 20 cubic yards of material. Through many past working relationships with Wyndham Construction and on very similar types of operations, the employees of Wyndham who were employed to load the bins were instructed on the amount of product to put in the bin. New Jersey law and NJ DOT construction site specifications requires that a load not project above the top rail of the bin and prohibits overweight vehicles from transporting material on the roadways.⁵¹ Heavier material should be loaded lower in the bin. This loading procedure requires the loader to estimate both the relative weight of the material being loaded and the height to which the material should be loaded in the bin.⁵² (See Vehicle Weight\Loading Regulations Section below.)

When the Herman's driver arrived at the construction site his instructions were to evaluate the load in the bin and determine if it was appropriate for transportation. The driver must use his experience and judgment to determine if the container was loaded correctly and not overweight. To load the bin onto the truck, the driver must attach the winch hook to the end of the bin and tilt the rails upward. By winding the winch and cable the bin is "rolled" onto the truck and secured. The bin was taken back to Herman's terminal where it was weighed, emptied and returned to the construction site. This is the only time the vehicle and load were weighed. The company is paid by the load and not by the weight.

The NTSB obtained the previous nine weight slips for the loads returning from the construction site for three individual days over a one month time frame. The gross weights were:⁵³

<u>Date</u>	<u>Gross Wt.</u>
1/5/12	72,140 lbs.
1/5/12	82,860 lbs.
1/5/12	77,400 lbs.
1/5/12	78,900 lbs.
1/5/12	72,040 lbs.
1/5/12	80,940 lbs.
1/31/12	90,500 lbs.
1/31/12	84,960 lbs.
2/2/12	85,240 lbs.

The driver records his beginning mileage at the terminal and then the beginning mileage at the construction site on a company form. He then records the purpose – "Pull" or "Drop" and the locations. He then records the ending mileage at the end of the day at the terminal. The company is paid a flat fee per load round trip.⁵⁴

⁵⁰ See Photograph #4

⁵¹ See Attachment #30 – Section 39:A:LL-3. Also see Attachment #30A – Excerpts from NJDOT and NJ Turnpike's Standard Specifications for Construction Sites.

⁵² This procedure was verified via an NTSB phone call to the construction site manager of Wyndham Construction on 2/22/2012

⁵³ See Attachment #25 – Weight Slips

⁵⁴ See Attachment #26 – Trip Information and Trip Invoices

4. Vehicle and Tire Weight\Loading Regulations

a. Evolution of vehicle weight regulations in U.S.⁵⁵

The first truck weight limits were enacted in 1913 in three states; Maine, Washington, and Pennsylvania. In 1914 the American Association of State Highway Officials (AASHO)⁵⁶ developed a model for use by states in establishing truck size and weight limits.

The first federal study on the regulation of truck size and weight was published in 1941 by the Interstate Commerce Commission (ICC). The study found:

“...wide and inconsistent variations in the limitation imposed by the...States...[and that]...limitations imposed by a single State may and often do have influence and effect which extend, so far as interstate commerce is concerned, far beyond the borders of that State, nullifying or impairing the effectiveness or more liberal limitations imposed by neighboring State.”

The study concluded that there was a need for a consistent federal standard on size and weight because of the unreasonable obstruction to interstate commerce.

The first federal truck size and weight limits were enacted in the Federal-Aid Highway Act of 1956 that was part of the newly established Interstate and Defense Highway System. The size and weight limits were set as:

- Single-axle weight limit of 18,000 lbs.
- Tandem-axle weight limit of 32,000 lbs.
- Gross Vehicle Weight (GVW) limit of 73,280 lbs.
- A “Grandfather Clause” permitted the continuation of heavier trucks on the new Interstate System consistent with State limits in effect on July 1, 1956.
- States could set size and weight limits different than the Federal limits for intrastate roadway travel, not on the interstate highway system

State compliance was tied to Federal highway funding provided to the States.

In 1974 the Federal-Aid Highway Act was amended to increase the weight limits to:

- Single-axle weight limit – 20,000 lbs.
- Tandem-axle weight limit – 34,000 lbs.
- GVW limit – 80,000 lbs.

These are the maximum weight limits in effect today. States are still free today to accept these limits or to establish their own maximum limits on non-interstate highway roadways.⁵⁷

⁵⁵ See Attachment #27 - Excerpt from US DOT *Comprehensive Truck Size and Weight Study*, 2000

⁵⁶ Forerunner of the American Association of State Highway and Transportation Officials (AASHTO)

⁵⁷ See *Vehicle Sizes and Weights Handbook*, J.J. Keller & Associates, Neenah, Wisconsin, 2008 – for individual state weight limits

This Act also created the “Bridge Weight” regulation and formula for determining that weight found in 23 CFR 658.17.⁵⁸ The weight formula was established to limit the amount of vehicle weight, by a single axle, a set of axles, or gross weight imposed on highway bridges to prevent excessive wear and damage to the interstate highway bridge system based on bridge design. These “bridge” limits are determined by calculating the number of consecutive axles (also called a ‘bridge’) and the distance between those axles. These limits primarily apply to the system of interstate highways, but may be adopted by a state as the maximum limits on all roadways within the state.

The 1982 Surface Transportation Assistance Act mandated maximum limits on the size of vehicles on the interstate highway system. In 1991 the Intermodal Surface Transportation Efficiency Act mandated limits on ‘long combination vehicles’ in interstate transportation.

States may grant increased highway size and weight limits on a case-by-case basis; these exceptions are granted via a Special Transportation Permit issued by a State Department of Transportation and/or a local jurisdiction’s road or public works department.⁵⁹ The Federal Highway Administration may also grant ‘permits’ on Interstate Highways.

The purpose of size and weight laws throughout the US is to reduce the damage to the roadways and bridges due to the concentrated weight imposed on roadways and bridges that causes damage to the pavement and bridge structures. Based on these weight limits, truck manufacturers engineer their vehicles to carry legally maximum loads and to safely stop the vehicles with those weights. The weight of a vehicle is especially critical to the ability of that vehicle to brake within the federally mandated stopping distances of 49 CFR 571.121. When the weight of a vehicle exceeds a design weight factor the vehicle takes longer to stop or may not be able to stop at all.⁶⁰

b. Vehicle Weight Ratings

In addition to and independent of the State maximum axle and gross weights imposed on the roadway, vehicle manufacturers manufacture and certify vehicle component parts, specifically axles, to carry a design rated weight capacity known as the gross axle weight rating (GAWR). These “weight ratings” are designed specifically for the type of vehicle manufactured taking into consideration suspension design, number of axles, and type of vehicle use (i.e. dump truck, truck tractor, semitrailer, etc.). The weight ratings are listed on a ‘sticker’ or plate on the vehicle, generally on the driver’s side door or door-jam along with other weight related specifications such as tire size and weight ratings. Manufacturers recommend that these weight ratings not be exceeded as exceeding them would be beyond the design capacity of the vehicle.

All states have laws prohibiting the loading of a vehicle in excess of its’ designed capacity.

c. Tire Weight Rating⁶¹

Tire manufacturers are required by federal regulation to place the weight rating and inflation pressure on the outside wall of every tire. Every vehicle is manufactured with specific tire size, weight capacity, and recommended inflation pressure (pound per square inch – psi) for that type of

⁵⁸ See Attachment #28 – Title 23 Code of Federal Regulations Section 658.17

⁵⁹ See NTSB Glendale CA report HWY-00-MH-020, January 20, 2000 for a fuller discussion of permitted vehicle movement.

⁶⁰ The ability of any vehicle to stop is based on a combination of factors that include vehicle weight, brake condition and adjustment, tire condition, and the friction value of the roadway.

⁶¹ See Attachment #29 - Excerpt from 49 CFR 571.119 and NHTSA Tire Safety Pamphlet

vehicle because the tires best integrate with the engineered suspension and axle ratings specifications. On trucks, the number of tires and the weight ratings for those tires are specified for the weight anticipated to be carried.

Tire pressure is an important part of the design factors because over inflation can cause more rapid tire wear and low tire pressure generates excessive heat in the tire and as a result lowers the weight carrying capacity of the tire or group of tires.

All states have laws prohibiting the loading of tires beyond their rated capacity.

d. New Jersey Vehicle and Tire Weight Laws⁶²

The maximum gross vehicle weight (GVW) without a special permit is 80,000 lbs. Commercial vehicles are registered using the gross vehicle weight rating (GVWR) from the manufacturer. The greater the weight on the vehicle registration: the more expensive the registration fee. The accident vehicle was registered at a GVWR of 80,000 lbs. and paid an annual registration fee of \$1,271.98.⁶³ Vehicle weight limits in New Jersey, when operated on a non-Interstate System Highway are:

- Single Axle Weight - 22,400 lbs. (steer axle and single axles where the distance between consecutive axles is greater than 96 inches)
- Tandem Axle Weight – 34,000 lbs. (distance between axles between 40 and 96 inches)
- Gross Vehicle Weight – 80,000 lbs.

When operated on an Interstate System Highway the weight limits are as stated in 23 CFR 658.17, and found in New Jersey weight chart in Title 39:3-84(b)(5). The significant difference between the two laws for enforcement purposes is that (1) the Federal rule allows for enforcement of the interior consecutive axle weight limits on more than two consecutive (vehicle bridge rule) and the New Jersey rule does not permit enforcement of that rule and (2) the New Jersey single axle weight rule is greater (22,400 lbs.) than the Federal single axle weight rule (20,000 lbs.).

As noted above, vehicle manufacturers engineer a vehicle's component parts for specified weights, including axle weights. Axle manufacturers certify their axles to carry a specific maximum weight, designated as the gross axle weight rating (GAWR). New Jersey weight laws do provide that a vehicle and load can be in violation when the load imposed on a single axle exceeds the manufacturer's GAWR.

An exception in the New Jersey law indicates that no violation of the weight limits occurs when:

“...the dispatch papers of the vehicle or combination of vehicles, including load or contents, shows it is proceeding from its last preceding freight pickup point within the State of New Jersey by a reasonably expeditious route to the nearest available scales or to the first available scales in the general direction towards which the vehicle or combination of vehicles has been dispatched, or is returning from such scales after weighing-in to the last preceding pickup point.”

⁶² See Attachment #30 - New Jersey Weight Statutes

⁶³ See Attachment #21 - Accident Vehicle Registration Information

On March 12, 2012 the trucking company was issued a citation by the New Jersey State Police for:

- (1) Exceeding the gross registered weight of the vehicle (had 84,950 lbs. actual weight vs. 80,000 lbs. registered weight = 4,950 lbs. overweight) – NJ Statutes 39:3-20,
- (2) Exceeding the tire weight limits (had 84,950 lbs. actual weight vs. 71,490 lbs. total tire weight capacity = 13,460 lbs. overweight) – NJ Statutes 39:5B-32, and
- (3) Overweight on the vehicle's #2 through #4 axles – (34,000 lbs. allowed on tandem axles + 22,400 lbs. allowed on single axle = 56,400 lbs.- total weight on the three axles 69,850 lbs. = 13,450 lbs. overweight) NJ Statutes 39:3-84b(3).⁶⁴

The driver was cited for overweight on axles because the above exemption did not apply because the load exceeded the state maximum axle weight limits and (1) the driver lacked the documents indicating that he was picking up at a specific location and using the most expeditious route; and (2) the driver did not use the closest scale facility which was located approximately ½ mile from the pick-up location.

The New Jersey State Police is the primary weight enforcement agency in the state. The weighing of vehicles is accomplished by either a platform scale at a fixed state or private scale facility or by use of portable scales that are used on individual axles. All scales used for weighing vehicle must be certified accurate by the State Department of Weights and Measures.⁶⁵

The fine for overweight vehicles is \$523 + \$100 for each 1,000 lbs. [over the specified weight] or fraction thereof.⁶⁶

The trucking company was also issued a citation for violation of “inadequate braking” (NJ Statute 39:5B-32)⁶⁷ due to pre-existing defects found during the post-collision vehicle inspection.

e. Loading Regulations

49 CFR 393.134 requires that roll-on/off containers be secured to prevent them from shifting horizontally and vertically. The container was secured at the front of the rails by metal locking devices that protruded upward and prevented the contained from sliding forward. The winch and cable/hook were attached to the front of the container and prevented the container from moving rearward. The vehicle was equipped with two 36-inch long “Super Web II” synthetic webbing binders with a metal hook coiled around wench attached to the frame on each side of the vehicle near the rear of the rails.⁶⁸ Each binder had a rated load capacity of 5,000 lbs. These binders were required to be attached to the container to help prevent it from shifting laterally and vertically while the vehicle was in motion.

⁶⁴ See Vehicle Group Chairman's Factual Report for more details.

⁶⁵ See New Jersey Statute 39: 3084.3 (a)(3)

⁶⁶ See Attachment #31 – Excerpt from NJ Traffic Fine Schedule

⁶⁷ NJ Statute 39: 5B-32 and 13:60-1.2 is the NJ rule that adopts the provisions of the Federal Motor Carrier Safety Regulations (FMCSRs) found in 49 CFR. As such it does not directly address the specific issue of brakes, but references the FMCSR that does. In the case the specific reference is 49 CFR 393.52 – Brake Performance

⁶⁸ See Photograph #6

The initial on-scene investigation by the State Police determined that these binders were not used and therefore constituted a violation of New Jersey Code 39:5B-32 that incorporates 49 CFR 393.134 and the driver was issued a citation.

New Jersey Statute 39:5B-32⁶⁹ requires that loads on vehicles that have the potential of blowing or falling off the vehicle onto the roadway must be covered in such a manner as to prevent this from happening. The accident vehicle was equipped with an electronically operated tarp that would cover the load and help prevent the contents of the container (asphalt) from falling off the vehicle. This tarp was not engaged at the time of the collision when it should have been covering the load. In addition the contents of the container were prohibited from extending above the top of the side rails. Items of the load were projecting above the side rails at the time of collision.⁷⁰

The driver was issued a citation by the New Jersey State Police for not covering the load with the tarp arising from this accident.

4. New Jersey Commercial Vehicle Oversight

Commercial vehicle oversight is conducted by two agencies; the Motor Vehicle Commission and the New Jersey State Police. Carriers based in New Jersey and operating in **interstate** commerce are subject, primarily, to the Federal Motor Carrier Safety Regulations (FMCSRs) and must be registered with the FMCSA. State enforcement personnel assist the FMCSA in roadside inspections, carrier compliance reviews, and new entrant safety audits through the Motor Carrier Safety Assistance Program which supplies funding for these enforcement activities.⁷¹

Carriers that operate **intrastate** are also subject to the FMCSRs via adoption by the New Jersey State Legislature.⁷² New Jersey does not issue an intrastate operating authority except for hazardous materials and passenger (motorcoach) carriers. New Jersey is in the process, but has not yet adopted all the program components of the FMCSA's Performance and Registration Information Systems Management (PRISM) program. Therefore, New Jersey cannot issue an intrastate carrier (other than hazardous materials and passenger carriers) a cease operations order.

In this investigation it was determined that both the school bus carrier and the trucking company had been registered with the FMCSA and had USDOT numbers. Compliance reviews were conducted on both companies post-accident.

a. Motor Vehicle Commission (MVC)

MVC's School Bus Inspection Unit is responsible for inspecting all vehicles used for school transportation, including:

- School buses
- Small school vehicles
- Dual-purpose vehicles
- Summer camp vehicles registered in the state

⁶⁹ Refer to 49 CFR 393.300.

⁷⁰ See Photograph #5

⁷¹ See 49 CFR 350

⁷² See New Jersey Administrative Code 13:60 for specific FMCSR Parts adoption

i. Specification Inspection

A Specification Inspection is a one-time inspection required for new school buses **prior to registration** to ensure that the vehicle meets all state and federal specifications. These inspections are conducted at certified locations, typically at bus dealer facilities. When the vehicle passes the inspection, a certificate of inspection is issued to the carrier, who then takes the certificate and other registration forms to the Department of Motor Vehicles for initial registration and license plate issuance.

ii. School Bus Initial Inspection

Initial inspections are required prior to issuance of license plates and registration. All school vehicles must be inspected by the MVC School Bus Inspection Unit before they can be registered in the State. The accident school bus was inspected in August 2011 and therefore was not yet subject to the 2012 annual inspection per 396.17.

iii. Vehicle Annual Inspections

All the school buses in the accident carrier's fleet had received their annual inspections.

iv. Periodic Inspections

According to the Motor Vehicle Commission there are approximately 23,000 school vehicles, including school buses, small school vehicles and dual-purpose vehicles in about 1,500 districts statewide that are subject to the Commissions biannual inspection program. This accounts for about 79,000 separate inspections annually. MVC data indicates that approximately 91 per cent of the inspected vehicles are "deemed safe for the road."⁷³

New Jersey law requires that school buses be inspected quarterly (4 times per year) by the carrier⁷⁴ and twice per year by the New Jersey Motor Vehicle Commission's (NJMVC) inspectors.⁷⁵ Inspections are conducted using the State's *Motor Vehicle Commission Bus Inspection* checklist.⁷⁶ Vehicles that pass the inspection are issued a rectangular blue sticker⁷⁷ placed in the lower left-hand corner of the windshield. Vehicles that do not pass the inspections are classed as *Rejected*, and receive one of two different stickers: *Rejected* – red sticker⁷⁸ – and can remain in service, but must be repaired within 30 days or *Rejected* – "out-of-service"⁷⁹ – and cannot be put back in service until repaired.

⁷³ See Attachment #32 - Press Release September 9, 2010 – MVC Commissioner Raymond Martinez

⁷⁴ See Attachment #33 - NJAC 13:20-30.8 - Quarterly Inspection Requirement and Inspection Form. Note – according to a telephone conversation with the NJ Motor Vehicle Commission on April 5, 2012, the "3,000 mile" requirement for inspection was deleted in the 2012 legislative session but has of the writing of this report has not been published as a final rule. This Attachment shows both versions of the inspection requirement.

⁷⁵ See Attachment #35 - NJAC 13:20-51.1(c) - Biannual Motor Vehicle Commission Inspection Rule and Inspection Parts

⁷⁶ See Attachment #34 – Supplemental Inspection of School Buses Criteria

⁷⁷ See Photo #7

⁷⁸ See Photo #8

⁷⁹ See Photo #9

New Jersey charges a fee for conducting these inspections:

School buses

\$25 for an Initial Inspection

\$50 for a Specification Inspection

\$25 for a re-inspection

Motorcoaches

\$85 – Initial

\$125 – Specification

\$30 – Re-inspection

One of the NJMVC inspections qualifies as the annual vehicle inspection requirement per 396.17.⁸⁰ Records show that these inspections were being conducted by GTS as required.

Additional responsibilities include unannounced school bus safety inspections and commercial vehicle safety presentations to both the public and private sectors. The NJ MVC conducted a post-accident inspection of the GST fleet on Friday February 17.⁸¹ This inspection was previously scheduled by the MVC and was unannounced. The inspection included the following:

- Records and repair documentation
- Lubrication and quarterly inspection records
- Systematic Preventative Maintenance records
- Driver Daily Inspection Reports
- Records of vehicle identification
- 163 Driver records

The results of the inspection are as follows:

- 10 Records were found incomplete in the Inspection and Repair, Lubrication and Quarterly Inspection, and Systematic PM areas.
- 3 Driver records were determined to be falsified
- 28 Driver Medical Examiner Reports needed to be updated
- 1 Driver did not have a current medical certificate
- 41 Driver employment files were reviewed with no violations
- 21 school buses were inspected
 - 13 were placed out of service for a 60 per cent out-of-service rate
 - 6 buses received 30-day rejection notices (Red Sticker)
 - 2 buses passed the inspection (Blue sticker)
- 18 buses were re-inspected after repairs were made
 - 16 passed the inspection – put back in service
 - 2 failed the inspection – remained out-of-service

A total of 17 citations were issued for the following violations:

⁸⁰ See Photo #10

⁸¹ See Attachment #36 – Results of the MVC GST Inspection

- 10 for failure to retain proper records
- 3 for falsification of records
- 1 for failure to comply with driver employment records
- 3 citations were issued to individual drivers for falsification of records.

The MVC vehicle inspection criteria is not the same as the FMCSA\CVSA North American Standard Inspection criteria and therefore do not qualify for uploading into the FMCSA Motor Carrier Management Information System (MCMIS). The inspection criteria and procedures are unique to New Jersey.⁸²

b. New Jersey State Police

i. Commercial Carrier Safety Inspection Unit

Commercial Carrier/Safety Inspection Unit personnel are responsible for implementation and enforcement of the federal regulations governing commercial vehicle drivers, related safety equipment, and the transportation of hazardous materials over state highways. They are also responsible for the enforcement of the commercial vehicle size and weight laws. Having adopted the Federal Motor Carrier Hazardous Materials Regulations and the Federal Motor Carrier Safety Regulations, the Division has assigned numerous teams of troopers, with specialized training to conduct roadside inspections of commercial vehicles to enforce federal safety regulations. Additional responsibilities include unannounced school bus safety inspections and commercial vehicle safety presentations to both the public and private sectors.

ii. Motor Coach\Compliance Review Unit (MCCRU)

Motor Coach/Compliance Review Unit personnel are responsible for roadside inspections of motor coaches, buses, as well as terminal inspections of cargo carrying commercial vehicles. The unit enforces Title 49 of the Code of Federal Regulations and Title 39 of the New Jersey motor vehicle code. Vehicles that pass a Level 1 or Level 5⁸³ inspection qualify for the required annual inspection under 49 CFR 396.17.

The MCCRU maintains the New Entrant Safety Audit program. This program is a Federal Motor Carrier Safety Administration initiative, which involves troopers meeting with representatives from motor carriers, who have applied for a federal DOT number. The purpose is educational, in which the carrier is informed of the minimum requirements needed to operate within the guidelines of the Federal Motor Carrier Safety Administration.

The MCCRU conducts compliance reviews of motor carriers, which have failed to maintain an acceptable safety rating or have been involved in a serious/fatal commercial motor vehicle crash. This review involves an extensive check of a motor carrier's records, equipment and drivers. This

⁸² See Attachment #37 – New Jersey Motor Vehicle Commission – Bus Inspection and Specification Worksheets

⁸³ There are 7 Levels (or categories) of roadside inspections. A Level 1 inspection includes the driver and vehicle (including an inspection of the components on the under carriage such as brake adjustment); a Level 2 is the driver and vehicle walk around only (a walk around inspection and does NOT include an inspection of the vehicle's undercarriage components); a Level 3 a driver\credential inspection only; Level 4 is a special item inspection; Level 5 is terminal inspection of a vehicle only (driver not present); Level 6 is a Transuranic Waste and Highway Route Controlled Quantities (HRCR) of Radioactive Material inspection; Level 7 is a Jurisdictional Mandated Commercial Vehicle Inspection.

is an enforcement program which the FMCSA utilizes to impose fines and/or out-of-service orders. Additional responsibilities include instructing motor coach inspection courses. The courses are given around the country and are mandated by the unit's funding source. The unit is also responsible to respond to and assist with post-crash inspections.

The MCCRU conducted a compliance review of the school bus carrier and the trucking company the day after the accident. The results of those reviews were noted above.

END OF REPORT

ATTACHMENTS

Attachment #1	CSA BASICS and Thresholds
Attachment #1A	GST Company Information
Attachment #2	GST 10/06/2011 Compliance Review
Attachment #2B	GST 07/11/2011 Non-rated Compliance Review
Attachment #3	GST 02/25/2011 Compliance Review
Attachment 3B	GST 02/25/2011 Compliance Review Documentation
Attachment #4	GST Post-Accident Compliance Review
Attachment #5	School District – GST Contract Bid
Attachment #6	GST – Standard Operating Procedures
Attachment #7	Northern Burlington County Regional School District's Bus Driver Handbook
Attachment #8	Excerpts from New Jersey Commercial Driver License Manual
Attachment #9	Excerpts from Various School Transportation Regulations
Attachment #10	Accident Route Information
Attachment #11	Excerpts from New Jersey Statute 18A Education
Attachment #12	Excerpts from New Jersey Administrative Code 6A:27
Attachment #13	Types of School buses
Attachment #14	Herman's Trucking SAFER and SMS Scores
Attachment #15	Herman's Trucking Post-Accident Compliance Review
Attachment #15B	Herman's Trucking 2006, 2001, and 1996 Compliance Reviews
Attachment #16	GST Driver Information
Attachment #16A	GST Driver's CDLIS Record
Attachment #17	FMCSA Warning Letter to Herman's Trucking 10/07/2011
Attachment #17A	Additional Burlington County Regional School District's Bus Driver Operations Policy
Attachment #18	Excerpt from New Jersey Snow Plow Guide
Attachment #19	Herman's Recycling Registration Information
Attachment #20	New Jersey Solid & Hazardous Waste Transporter "Quick Access Guide" 2009 – 2011
Attachment #21	Herman's Trucking Accident Truck Registration Information
Attachment #22	Herman's Trucking Accident Driver's Driving History
Attachment #23	Excerpts from Herman's Trucking Accident Driver's Qualification File

Attachment #24	Herman's Trucking Accident Driver's Time Sheets
Attachment #25	Weight Slips
Attachment #26	Trip Information and Trip Invoices
Attachment #27	Excerpts from USDOT "Comprehensive Truck Size and Weight Study"
Attachment #28	Title 23 Code of Federal Regulations Section 658.17 – Weight Chart
Attachment #29	Excerpt from Title 49 Section 571.119 and NHTSA Tire Safety Pamphlet
Attachment #30	New Jersey Weight Statutes
Attachment #30A	Excerpts From NJDOT and NJ Turnpike Authority's Construction Site Specifications
Attachment #31	Excerpt from New Jersey Traffic Fine Schedule
Attachment #32	Press Release September 9, 2010 – MVC Commissioner Raymond Martinez
Attachment #33	NJAC 13:20-30.8 – Quarterly School Bus Inspection Requirement and Form
Attachment #34	NJAC 13:20-30.1 ff – Supplemental Inspection of School Buses Criteria
Attachment #35	NJAC 13:20-51.1(c) – School Bus Biannual Inspection Requirement and Inspection Parts
Attachment #36	Results of MVC Inspection of GST 02/17/2012
Attachment #37	MVC Bus Inspection and Specification Worksheets
Attachment #38	Additional States School Bus Driver Requirements

Supplemental Attachments

Supplemental Attachment #1	National School Transportation's Comment on FMCSA's Docket 2007-27748
Supplemental Attachment #2	National Association of State Directors of Pupil Transportation Services Position Paper – <i>School Bus Driver's Training – 2000</i>
Supplemental Attachment #3	Excerpts From the <i>National School Specifications and Procedures – School Bus Driver Training</i>
Supplemental Attachment #4	Excerpts From the National Highway Traffic Safety Administration's School Bus Driver In-Service Training
Supplemental Attachment #5	National School Transportation's Comment on FMCSA Docket 2007-27659

Photographs

Photograph #1	View of the front of an exemplar Herman's Trucking Mack truck with snow plow device affixed to front bumper
Photograph #2	View of the front of an exemplar Herman's Truck Mack truck without the snow plow equipment on front bumper
Photograph #3	View of the New Jersey Department of Environmental Protection Agency's A-901 Exemption Sticker on left side of accident truck.
Photograph #4	View of Herman's Trucking's bins at loading site next to New

	Jersey Turnpike construction area
Photograph #5	View of the asphalt in the accident truck's bins showing load slightly above the tops of the sides of the bin
Photograph #6	View of the load securement straps and wench on the right rear of the accident truck
Photograph #7	View of a vehicle inspection sticker (blue) indicating the vehicle had passed the MVC's inspection
Photograph #8	View of a vehicle inspection sticker (red) indicating the vehicle had failed the MVC's inspection and had 30 days to correct the defect
Photograph #9	Out-of-Service notification in the windshield of a vehicle that had failed a MVC's inspection and could not be operated until the defect was corrected and re-inspected
Photograph #10	Form in Herman's Trucking's vehicle showing that vehicle had passed the required annual inspection.