



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

Baltimore, MD

HWY17MH007

(40 pages)

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

**MOTOR CARRIRER FACTORS GROUP CHAIRMAN'S
FACTUAL REPORT**

A. CRASH INFORMATION

Location: Eastbound Frederick Avenue between South Monastery Avenue and South Morley Street, Baltimore, Baltimore County, Maryland

Vehicle #1: 2015 IC 64 Passenger School Bus

Operator #1: AAAffordable Transportation, LLC

Vehicle #2: 2012 Ford Mustang

Operator #2: Private Operator

Vehicle #3: 2005 New Flyer Transit Bus

Operator #3: Maryland Transit Administration

Date: Tuesday, November 1, 2016

Time: Approximately 6:30 a.m. eastern daylight time

NTSB #: **HWY17MH007**

B. MOTOR CARRIER FACTORS GROUP

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C. CRASH SUMMARY

For a summary of the crash, refer to the *Crash Summary Report*, in the docket for this investigation.

D. DETAILS OF THE MOTOR CARRIER FACTORS INVESTIGATION

This investigative report addresses the motor carrier operations of AAAfordable Transportation LLC, the owner and operator of Vehicle 1. This report documents the driving history, hours of service, drug and alcohol testing, and employment history of the accident school bus driver. Additionally, this report will review the operations of Vehicle 2, owned and operated by the Maryland Transit Administration (MTA). Lastly, this report addresses the Federal, State and City government oversight of contracted school bus operations in Baltimore, Maryland.

1. AAAfordable Motor Carrier Operations

The motor carrier of Vehicle 1 accident is identified as AAAfordable Transportation LLC (hereinafter AAAfordable). According to the Federal Motor Carrier Safety Administration (FMCSA) Motor Carrier Management Information System (MCMIS), the carrier was issued USDOT number 1982031.¹ The carrier registered with the FMCSA January 8, 2010 under the following classifications: “Intrastate non-Hazmat carrier; Authorized For-Hire; “Passenger Intrastate” motor carrier. The carrier operates from their principal place of business located in Baltimore, Maryland.²

1.1. Carrier History

AAAfordable is owned and operated by two sisters.³ According to the carrier, the company originated when the owners purchased two buses from their father who at the time, owned Ferguson’s Charter Bus Inc. (USDOT 326892).⁴ While in business, Ferguson’s operated school bus routes for Howard County, Maryland as well as motorcoach charter service to Baltimore,

¹ See Motor Carrier Attachment 1- MCS-150s for AAAfordable.

² See Motor Carrier Photos 1-2, AAAfordable Principle Place of Business and Biometric Scan Time Clock.

³ See Motor Carrier Attachment 2- AAAfordable Articles of Incorporation.

⁴ See Motor Carrier Attachment 3- AAAfordable Interview.

Maryland casinos.⁵ In 2004, AAAfordable purchased two buses from Ferguson’s that came with assigned school bus routes for Howard County.⁶ In 2009, AAAfordable purchased five additional buses from Classic Transportation, who was also a Baltimore City Public School (BCPS) bus contractor. The additional school buses came with established YMCA routes. In 2010, AAAfordable bid on and was awarded two BCPS bus routes. Also in 2010, the company added one additional route for Howard County school system.

1.2. Carrier Structure and Business Model

At the time of the crash, the carrier employed 25 employees, owned and operated 16 school buses and employed 14 commercial driver license (CDL) drivers. The carrier’s revenue was generated by seven Baltimore City school bus routes and three Howard County school bus routes. Although the carrier had registered with FMCSA as an “Intrastate” motor carrier, NTSB investigators determined that the carrier had operated “For-Hire Interstate” charter service to Virginia and to Washington, DC. Conducting interstate operations would not allow the carrier to be exempt from various regulations as outlined by 49 Code of Federal Regulations (CFR) §390.3.⁷

1.3. School bus routes

The City of Baltimore plans and establishes the school bus routes for the bus contractors. The school bus route driven by the accident driver was Route number 039.703. According to route schedule, the first pickup was scheduled at 6:29 a.m. for 4921 Frederick Ave. It should be noted, that on the day of the crash, the route had been modified to pick up one additional child for the fifth stop. The school bus driver however crashed prior to making his second stop and there were no other adjustments to his normal route schedule on the day of the crash.

1.4. Carrier Safety Program

The carrier produced policies and operating procedures that outlined the company’s safety program and safety culture. As a school bus contractor, the carrier was required by the BCPS contract to comply with various safety requirements that influenced their safety posture and daily operations. Such requirements included that the carrier appoint key staff members that possessed knowledge and experience in related matters such as dispatch and operations. The safety manager was also required to be a current and qualified BCSP school bus driver. Furthermore, the carrier

⁵ MCMIS shows Ferguson Charter Bus inactive.

⁶ See Motor Carrier Attachment 4 – AAAfordable School Bus Bill of Sale.

⁷ General Applicability: the regulations apply to all employers, employees, and commercial motor vehicles that transport property or passengers in interstate commerce. Exception to the regulations includes: All school bus operations as defined in §390.5, except for the provisions of §391.15(e) and (f), 392.80, and 392.82 of this chapter. Under §390.5 *School bus operation* means the use of a school bus to transport only school children and/or school personnel from home to school and from school to home. Furthermore, a *School bus* means a passenger motor vehicle which is designed or used to carry more than 10 passengers in addition to the driver, and which the Secretary determines is likely to be significantly used for the purpose of transporting preprimary, primary, or secondary school students to such schools from home or from such schools to home.

was required to hold a minimum of five annual safety meetings, not less than one hour in length for all contractor personnel.⁸ Carrier safety meeting topics had to meet prior approval from BCPS.

The carrier's policies and procedures included: 1) Progressive discipline policy 2) Bus Safety Procedures, 3) Training Policy, 4) No Smoking Policy, 5) Fire Prevention Policy, 6) CDL Driver Hiring Criteria, 7) Company Vehicle Policy, 8) Cell Phone and Mobile Device Policy, 9) Attendance and Punctuality Policy, 10) Bus Attendant Responsibilities, 11) Baltimore Certification Process, 12) Licensing and Certification Policy, 13) Company Vehicle Policy, 14) Drug and Alcohol Policy, and 15) Company Property Policy. The carrier also provided their drivers with a copy of the Baltimore City Public Schools Office of Pupil Transportation - School Bus Personnel Procedures Manual.⁹

1.4.1. Carrier Driver Training Records

The carrier provided company training records that reportedly were instructed to the accident driver. The training dates included:

- Monthly Safety Meeting – May 17, 2016
- Safety Procedures: Driver Responsibilities – August 22, 2016¹⁰

The attendance sheets for the meetings provided by the carrier however, did not list the accident driver's signature. The accident driver was required to attend annual in-service school bus training conducted by BCPS to meet certification requirements. BCPS in-service training will be discussed in Section 4.4.2.

1.5. Carrier Hiring Practices

The carrier's hiring process minimum hiring qualifications included: hold a valid commercial driver's license (CDL) with passenger (P) and school bus (S) endorsement; provide a certified copy from Maryland Vehicle Administration (MVA) detailing complete driving history; and possess a valid DOT medical card. If the driver did not have a current DOT medical card, then the carrier would send the driver to get one. After completing an employment application, the perspective driver would be interviewed by the carrier. The driver would then have to take a road test in a school bus with a company representative. Next, the perspective driver would be required to take a DOT pre-employment drug test. If the pre-employment drug test was negative, then the carrier would submit a request using the "*Department of Pupil Transportation Safety Office Request for Information*" form to BCPS.¹¹ Baltimore school bus contractors are required to use this form to officially request BCPS to add a school bus driver. The form consisted of the following BCPS driver certification requirements:¹²

- DOT Physical

⁸ See Motor Carrier Attachment 5- BCPS Request for Proposals.

⁹ See Motor Carrier Attachment 6- AAAfordable Policy Records.

¹⁰ See Motor Carrier Attachment 7- Accident Driver Training Records.

¹¹ See Motor Carrier Attachment 8- BCPS Request for Information Form.

- MVA Record
- Copy of CDL with Passenger & School Bus endorsement
- Pre-service training
- Certification Expires
- Pre-employment drug test
- Criminal Background check (completed by BCPS)
- Social Security Card
- Currently Certified (yes / no)

The last step in hiring a driver involved BCPS vetting the prospective driver's credentials with the records maintained by BCPS. The BCPS would then notify the carrier if the prospective driver either "met" or was "deficient" in any of the certification items. Once the certification criteria were met; the new driver would be "added to the board," meaning the driver was hired and could be assigned a BCPS school bus route.

1.6. Carrier DOT Drug Testing

The carrier used Concentra-Arbutus for pre-employment drug testing and DOT medical certifications. The carrier stated that they paid for the pre-employment drug testing and medical certifications; however, the BCPS was responsible for (and paid for) the DOT random drug testing program. The carrier stated that the BCPS operated a consortium through a third-party administrator was First Advantage. The carrier stated that BCPS would notify them (via fax) when a school bus driver was selected for a random DOT drug test. Additional information concerning the BCPS drug testing program are discussed in Section 4.4.4.

1.6.1. Accident Driver Drug Testing File

The NTSB reviewed the accident driver's DOT drug testing records. The carrier provided various DOT chain of custody forms indicating the accident driver had submitted to DOT tests, but failed to produce any Medical Review Officer (MRO) reports showing the final disposition of the drug test results. As required under §382.301(a) – "No employer shall allow a driver who intends to hire or use the driver to perform a safety sensitive function unless the employer has received a controlled substances test result from the MRO indicating a verified negative test for that driver." The carrier was also missing random DOT drug test results, in violation of §382.401 that requires DOT drug test results to be maintained on file for one year. It should be noted, that printed on the front cover of the driver's qualification (DQ) file were sections of the Federal Motor Carrier Safety Regulation (FMCSRs) outlining driver qualification and drug and alcohol testing requirements.

The accident driver's drug testing file was also missing background checks for compliance with DOT drug testing from previous employers. Per §382.413 employers must request

compliance of alcohol and controlled substances testing information from previous DOT regulated employers during the previous two years'. Such requested information would include: positive drug or alcohol tests; refusals; any violations of DOT drug testing regulations; or if the driver was non-compliant with the provisions of DOT return to duty.¹³ Also missing from the accident driver's drug testing file were educational training materials of DOT drug and alcohol testing as required by §382.601.

1.6.2. Obtaining Missing MRO Reports

The NTSB obtained copies of the accident driver's MRO reports.¹⁴ The MRO reports determined that the accident driver had submitted to two pre-employment tests, two random drug tests, and one post-accident test while employed by AAAfordable, which all reflected a "Negative" disposition. The MRO reports also indicated that the accident driver had submitted to numerous DOT drug tests for other carriers in addition to AAAfordable. The drug testing information provided insight concerning the accident driver's employment history.¹⁵ For further information pertaining to the driver's DOT drug testing, see the *Human Performance Group Chairman's Factual Report* in the docket for this investigation.

2. Federal Oversight: Federal Motor Carrier Safety Administration (FMCSA)

2.1. CSA and SMS

In 2010, the FMCSA introduced the Compliance, Safety, Accountability (CSA) system as an initiative to improve large truck and bus safety and ultimately reduce crashes, injuries, and fatalities that are related to CMVs. Along with CSA, the FMCSA also rolled out a new operational model called the Safety Measurement System (SMS). SMS uses a motor carrier's data from roadside inspections, (including all safety-based violations), state-reported crashes, and the Federal Motor Carrier Census to quantify performance in the following Behavior Analysis and Safety Improvement Categories (BASICS).

2.2. CSA BASICS¹⁶

- **Unsafe Driving** — Operation of CMVs by drivers in a dangerous or careless manner. *Example violations:* Speeding, reckless driving, improper lane change, and inattention. (FMCSR Parts 392 and 397)
- **Hours-of-Service (HOS) Compliance** — Operation of CMVs by drivers who are ill, fatigued, or in non-compliance with the HOS regulations. This BASIC includes violations of regulations pertaining to records of duty status (RODS) as they relate to HOS requirements and the management of CMV driver fatigue *Example*

¹³ DOT regulated drivers- Under §382.103 Applicability: applies to service agents and to every person and to all employers of such persons who operate a commercial motor vehicle in commerce in any State and are subject to the commercial driver's license (CDL) requirements of part 383 of this subchapter.

¹⁴ See Motor Carrier Attachment 9 - MRO reports.

¹⁵ See Accident Driver's employment history detailed in section 5.4.

¹⁶ Retrieved from: CSA Methodology: www.fmcsa.dot.gov

violations: false HOS RODS, and operating a CMV while ill or fatigued. (FMCSR Parts 392 and 395)

- **Driver Fitness** — Operation of CMVs by drivers who are unfit to operate a CMV due to lack of training, experience, or medical qualifications. *Example violations:* Failure to have a valid and appropriate commercial driver’s license (CDL) and being medically unqualified to operate a CMV. (FMCSR Parts 383 and 391)
- **Controlled Substances and Alcohol** — Operation of CMVs by drivers who are impaired due to alcohol, illegal drugs, and misuse of prescription or over-the-counter medications. *Example violations:* Use or possession of controlled substances/alcohol. (FMCSR Parts 382 and 392)
- **Vehicle Maintenance** — Failure to properly maintain a CMV and/or properly prevent shifting loads. *Example violations:* Brakes, lights, and other mechanical defects, failure to make required repairs, and improper load securement. (FMCSR Parts 392, 393, and 396)
- **Hazardous Materials (HM) Compliance** — Unsafe handling of HM on a CMV. *Example violations:* Release of HM from package, no shipping papers (carrier), and no placards/markings when required. (FMCSR Part 397 and Hazardous Materials Regulations Parts 171, 172, 173, 177, 178, 179, and 180)
- **Crash Indicator** — Histories or patterns of high crash involvement, including frequency and severity based on information from state-reported crashes.

A carrier’s measurement for each BASIC depends on the following:

- The number of adverse safety events (violations related to that BASIC or crashes).
- The severity of violations or crashes.
- When the adverse safety events occurred (more recent events are weighted more heavily).


After a measurement is determined, the carrier is then placed in a peer group (i.e., other carriers with similar numbers of inspections). Percentiles from 0 to 100 are then determined by comparing the BASIC measurements of the carrier to the measurements of other carriers in the peer group. A percentile of “100” indicates the worst performance.

The FMCSA established threshold levels that would require agency action. Unsafe Driving, HOS, and Crash BASICs were set at lower thresholds because of their inherent risk. Additionally, passenger and Hazmat carriers have lower thresholds than all other carriers because of their inherent risk. **Table 1** represents the thresholds set by the FMCSA that help prioritize agency intervention and resource management.¹⁷ AAAfordable is classified as a passenger carrier under this criteria.

¹⁷ Retrieved from: www.fmcsa.dot.gov.

Table 1. BASIC thresholds.¹⁸

BASIC	Passenger Carrier	HM Carrier	All Other Motor Carriers
Unsafe Driving, HOS, Crash	50%	60%	65%
Driver Fitness, Drug & Alcohol, Maintenance	65%	75%	80%
Hazardous Materials	80%	80%	80%

On a carrier’s SMS profile, (which is publicly available on the Safer website for passenger and Hazmat carriers), an alert using this symbol  is displayed in any designated BASIC when the carrier has exceeded the corresponding threshold.¹⁹ This is also referred to as having an “alert” in a BASIC. The MCMIS Carrier Profile reflected two roadside inspections in October 2015 however, neither inspection involved the accident driver or accident school bus.²⁰ The MCMIS Carrier Profile did indicate a 98 percent alert in controlled substances and alcohol between July and August 2015. However, at the time of the crash the carrier had no alerts in any BASICs and did not reflect any roadside inspection data within the past year.

2.3. New Entrant Status

AAAfordable originally registered with the FMCSA in 2010 as an intrastate carrier. The carrier updated their MCS-150 on March 12, 2014 to interstate classification that automatically placed them into the New Entrant Safety Program. On July 17, 2015, the carrier’s USDOT number was revoked for failing to comply with the New Entrant Safety Audit requirements by failing to submit to a safety audit request. After waiting 30 days, the carrier reapplied for their USDOT number on August 17, 2015 which rescinded the Out-of-Service order. According to MCMIS, the carrier also changed their operation from “interstate” to “intrastate” which removed them from the New Entrant Program.²¹ According to MCMIS, the carrier had not been subject to a Safety Audit or Compliance Review (CR) prior to the crash.

AAAfordable officials produced documents that showed several pages of a Compliance Review dated March 10, 2014.²² The CR was not however in MCMIS. According to FMCSA officials, the CR was “conducted by Maryland State Police and was never uploaded into MCMIS or approved.” The carrier also produced a document called a “Comprehensive Review” that was conducted by a safety consultant company called the Transportation Safety Exchange (TSX). This document showed that the carrier was inspected on December 9, 2015 and indicated that the carrier received an “Overall Rating: Approved 1:0.”²³

¹⁸ Retrieved from: <http://csa.fmcsa.dot.gov/FAQs.aspx>.

¹⁹ FMCSA BASIC information publicly available for passenger and Hazardous Material carriers only. See additional information at the FMCSA Safer website: <http://safer.fmcsa.dot.gov/CompanySnapshot.aspx>.

²⁰ See Motor Carrier Attachment 10- AAAfordable MCMIS Carrier Profile.

²¹ For additional details see Motor Carrier Attachment 1 -MCS-150’s for AAAfordable.

²² See Motor Carrier Attachment 11- CR for AAAfordable dated March 10, 2014.

²³ See Motor Carrier Attachment 12- AAAfordable TSX Comprehensive Review.

2.4. FMCSA Compliance Reviews and Safety Rating Determination

CRs are conducted by FMCSA or state officials which gather pertinent motor carrier compliance and accident information. The CR is an in-depth examination of a motor carrier's operation and is used (1) to rate un-rated motor carriers, (2) to conduct a follow-up investigation on motor carriers rated unsatisfactory or conditional as a result of the previous review, (3) to investigate complaints or (4) in response to a request by motor carrier to reevaluate its safety rating. The FMCSA gathers information through an in-depth examination of the motor carrier's compliance with identified "acute" or "critical" regulations of the FMCSR's and Hazardous Materials Regulations (HMRs).²⁴

Acute regulations are identified as such where noncompliance is so severe as to require immediate corrective action by motor carrier regardless of the overall safety posture of the motor carrier. Critical regulations are those identified where such noncompliance relates to management and or operational controls. Noncompliance with acute regulations and patterns of noncompliance with critical regulations are quantitatively linked to inadequate safety management controls and usually higher than average accident rates. A list of all critical and acute violations can be found in Appendix B to Part 385. The FMCSA uses noncompliance with acute regulations and patterns of critical regulations to determine motor carriers' safety fitness standards in §385.5. The CR uses a formula that assigns the safety fitness for the motor carrier is determined by a proposed Safety Rating, which will result in one of the following: "satisfactory", "conditional" or "unsatisfactory." Not all CRs result in the motor carrier being issued a safety rating. The FMCSA can conduct a focused or limited CR that may result in a "Non-Rated" status.

The FMCSA has developed a computerized rating formula for assessing the information obtained from the CR, and uses that formula in assessing a safety rating. Parts of the FMCSRs and the HMRs having similar characteristics are combined into six regulatory areas called factors. The following table shows the six regulatory factors and parts of the FMCSR's and HMRs associated with each factor and the accident factor. The six factors are as follows:

Factors:

Factor 1- General: Parts 387 and 390

Factor 2- Driver: Parts 382, 383 and 391

Factor 3- Operational: Parts 392 and 395

Factor 4- Vehicle: Parts 393 and 396

Factor 5- Hazardous Materials: Parts 390, 171, 177 and 180

Factor 6- Accident Factor: Recordable rate

Federal and State Inspectors utilize a computer software program called "Capri" which helps assign the Safety Rating. Capri is used for preparing Compliance Reviews and Safety Audits,

²⁴ FMCSR Part 385.

as well as specialized cargo tank facility reviews, and hazardous material (HM) shipper reviews. Capri includes worksheets for collecting (1) hours of service data, (2) driver qualification data, and (3) drug and alcohol compliance data. It also creates the preliminary carrier safety fitness rating and various reports for motor carriers. It electronically transfers data to MCMIS. The Capri software employs a formula utilizing the six factors to yield a Safety Rating. **Table 2** outlines the Safety Rating Methodology.

Table 2. Motor Carrier Safety Rating Methodology

Factor ratings		Overall Safety Rating
Unsatisfactory	Conditional	
0	2 or fewer	Satisfactory
0	more than 2	Conditional
1	2 or fewer	Conditional
1	more than 2	Unsatisfactory
2 or more	0 or more	Unsatisfactory

2.5. Post-Crash Compliance Review

As a result of this investigation, the FMCSA conducted a post-crash CR on AAAfordable.²⁵ The CR resulted in the following 22 State and Federal violations:

1. §382.305(b)(2)- Failing to conduct random controlled substances testing at the annual rate of not less than the applicable annual rate of the average number of driver positions.
2. §382.105- Failing to ask employee if any pre-employment test conducted in the preceding two years resulted in a positive test result or refusal to test.
3. §382.301(a)- Using a driver before the motor carrier has received a negative pre-employment controlled substance test result.
4. §382.305(b)(1)- Failing to conduct random alcohol testing at an annual rate of not less than the acceptable annual rate of the average number of driver positions.
5. §382.305(i)(2)- Failing to ensure that each driver subject to random alcohol and controlled substances testing has an equal chance of being selected each time selections are made.
6. §382.305(i)(3)- Failing to ensure that drivers are tested within the selection period.
7. §382.601(b)- Failing to provide to employees a written policy on misuse and controlled substances that meets the requirements of §382.601(b)1-11.

²⁵ See Motor Carrier Attachment 13, AAAfordable Post-Accident CR dated December 21, 2016.

8. §382.603- Failing to ensure person designated to determine that drivers undergo reasonable suspicion training receive 60 minutes training for alcohol and/or 60 minutes training for controlled substances.
9. §391.11(b)(6)- Failing to require driver to furnish list of motor vehicle traffic violations each 12 months.
10. §391.21(a)(State violation)- Using a driver who did not complete and furnished an employment application.
11. §391.21(a)- Using a driver who did not completed and furnished an employment application.
12. §391.23(a)(State violation)- Failing to investigate a driver's background.
13. §391.23(a)- Failing to investigate a driver's background.
14. §391.23(e)(1)(State violation)- Failing to investigate the driver's alcohol and controlled substances history for the previous 3 years.
15. §392.23(e)(1)- Failing to investigate the driver's alcohol and controlled substances history for the previous 3 years.
16. §391.25(a)- Failing to make an inquiry into driving record of each driver to appropriate State agencies in which the driver held a commercial motor vehicle operator's license at least every 12 months.
17. §391.25(b)- Failing to review the driving record of each driver to determine whether that driver meets minimum requirements for safe driving or is disqualified to drive.
18. §391.51(b)(9) (State violation)- Failing to place a note related to the verification of the medical examiner's listing on the National Registry of Certified Medical Examiners required under 391.23(m) in driver's disqualification file.
19. §391.51(b)(9)- Failing to place a note related to the verification of the medical examiner's listing on the National Registry of Certified Medical Examiners required under 391.23(m) in driver's disqualification file.
20. §396.3(b)(4)- Failing to keep a record of tests conducted on pushout windows, emergency doors, and emergency door marking lights on buses.
21. §396.11(c)(2)(State violation) CFR equivalent 396.11(c)(2)- Failing to retain vehicle inspection report for at least 3 months.
22. §396.11(c)(2)(Federal violation)- Failing to retain vehicle inspection report for at least 3 months.

Despite citing the carrier for 22 violations and the FMCSA issuing the motor carrier a Notice of Claim for \$5,700; the carrier was issued a satisfactory safety rating.²⁶ Once the CR was approved, MCMIS automatically changed the carrier from intrastate to interstate, which placed them back in the New Entrant Safety Program. On March 21, 2017, the carrier changed their operation from interstate back to intrastate which removed them from the New Entrant Safety Program. As of the writing of this report, AAAffordable shows "active" status in MCMIS. Additionally, according to the carrier's website (<http://aaaffordabletransportation.com/>) they still offer school bus transportation as well as limousine service. According to MCMIS, Renaissance

²⁶ Notice of Claim as defined under §396.2 means the initial document issued by FMCSA to assert a civil penalty for alleged violations of the FMCSRs, HMRs or FMCCRs.

Bus Company LLC USDOT 2952934 and A&T Limousines LLC USDOT 2855146 are operating under the same ownership and have the same address and phone number as AAAfordable.²⁷

2.6. Notice of Proposed Rule Making -Safety Fitness Determination

On January 21, 2016, the FMCSA published a Notice of Proposed Rule Making (NPRM) to amend the current methodology for issuance of a safety fitness determination (SFD) for motor carriers. The proposed new methodologies would determine when a motor carrier is not fit to operate commercial motor vehicles in or affecting interstate commerce based on the carrier's on-road safety data in relation to five of the seven Behavior Analysis and Safety Improvement Categories BASICS; an investigation; or a combination of on-road safety data and investigation information. The intended effect of this action is to more effectively use FMCSA data and resources to identify unfit motor carriers and to remove them from the Nation's roadways.

In this NPRM, FMCSA proposed to eliminate the current three-tier rating system (i.e., Satisfactory–Conditional–Unsatisfactory) for determining safety fitness in favor of a single determination of unfit. FMCSA's statutory requirement is to determine which owners or operators are unfit to operate on the Nation's roadways. The new rating would result in a carrier either being "Fit" or "Unfit." The statute prescribes specific consequences for motor carriers found to be "Unfit." Carriers deemed "Unfit" are prohibited from operating in interstate commerce or transportation that affects interstate commerce.

On March 22, 2017, the FMCSA withdrew its NPRM to change the process for carrier safety fitness determinations and cancelled previously announced plans to develop a supplemental NPRM. The FMCSA stated a modified proposal would come after the agency receives the correlation study from the National Academies of Science (NAS), as required by the Fixing America's Surface Transportation (FAST) Act, and assesses "whether and, if so, what corrective actions are advisable." The NAS study, which is expected to be released by mid-2017, was one of several provisions in the FAST Act aimed at reforming the CSA program and the SMS methodology.²⁸

3. State Oversight: Maryland State Department of Education

Under the State Superintendent of Schools and guidance from the Maryland State Board of Education, the Maryland State Department of Education (MSDE) develops and implements standards and policy for education programs from pre-kindergarten through high school.²⁹ The MSDE consists of 24 school districts statewide. Within the MSDE is the Office of Pupil Transportation/Emergency Management which is "responsible for developing and implementing statewide policies, procedures, and plans related to all aspects of transporting students to and from public schools as provided by State and federal laws and the bylaws of the State Board of Education." The office is also responsible for providing technical assistance for training school bus drivers; coordinating activities with the Motor Vehicle Administration; researching and

²⁷ See Motor Carrier Attachment 14-MCS-150's for A&T Limousine and Renaissance Bus.

²⁸ Retrieved from: <https://www.federalregister.gov/documents/2017/03/23/2017-05777/carrier-safety-fitness-determination>.

²⁹ Retrieved from: <http://marylandpublicschools.org/Pages/default.aspx>

developing data concerning finance and legislation; and maintaining databases for school bus driver offenses related to drugs and alcohol, and school bus driver accidents.

The MSDE provides regulatory oversight for pupil transportation in the state of Maryland. The MSDE establishes regulatory guidance through the Code of Maryland Regulations (COMAR) Title 13A, Subtitle 6, Chapter 7.³⁰ These regulations detail school bus driver qualifications, drug and alcohol testing requirements, general standards, vehicle inspections, routing and operating procedures and other directives.³¹ This regulation also requires school bus driver evaluations that must take place at least once every two years. According to MSDE officials, the agency does not typically take enforcement actions with a non-compliant school system. The MSDE could penalize a school system for non-compliance by withholding state funds; however, it is typically not pursued since doing so would take funding away from students. Ultimately, it is the responsibility of the individual school district and transportation department to meet the requirements of COMAR. Specific issues of non-compliance by a school system would fall under the jurisdiction of the corresponding city or county government. Some of the MSDE oversight program elements are discussed in the following sections.

3.1. MSDE Accident Database

The MSDE maintains an accident database for school bus accidents throughout the state of Maryland. Maryland transportation managers in the state of Maryland are required to submit a report of school bus accidents to the MSDE. According to the MSDE, the accident driver had one other recorded crash while operating a school bus for BCPS. The date of that crash was March 5, 1997.³² The 1997 accident record indicated that the driver was at the time employed by City Wide Bus Company. The 1997 accident report indicted the crash did not result in any injuries or fatalities. The 1997 report also indicated that the accident driver (at the time) had operated a school bus “1 to 2 years” when the crash occurred. The accident report further stated contributing circumstances as: “improper distance judgement.” The NTSB interviewed City Wide Bus Company officials that stated their records were limited because of office remodeling and only had a computer file showing the driver was employed in 2010.³³ The MSDE did not have any additional crashes on file for the accident driver.

The MSDE requires all school districts to report all bus accidents on an annual basis.³⁴ According to MSDE the state had 579 school bus accidents for 2016.³⁵ Baltimore City had 28 recorded crashes, representing 4.8 percent of the overall crash data. A comparison of number of school bus accidents for the last three years are outlined in **Table 3**.

³⁰ COMAR Title 13, Subtitle 06, Chapter 07 Student Transportation: www.marylandpublicschools.org

³¹ Retrieved from: http://archives.marylandpublicschools.org/MsDE/programs/transportation/sl_r.html

³² See Motor Carrier Attachment 15- MSDE Accident Report dated March 5, 1997.

³³ See Motor Carrier Attachment 16- City Wide Interview.

³⁴ MSDE requirement includes reporting all crashes involving a school bus regardless if meeting the DOT recordable crash definition.

³⁵ See Motor Carrier Attachment 17- MSDE Accident Summary Report.

Table 3. MSDE School Bus Crash Data

School System	2014	2015	2016
Allegany	3	4	9
Anne Arundel	0	17	32
Baltimore City	6	28	28
Baltimore County	72	64	53
Calvert	4	8	9
Caroline	6	4	6
Carroll	18	14	19
Cecil	20	11	6
Charles	23	25	18
Dorchester	1	4	2
Frederick	5	15	24
Garrett	0	1	1
Harford	24	26	10
Howard	44	17	24
Kent	1	2	1
Montgomery	50	86	122
Prince George's	191	169	179
Queen Anne's	6	5	3
Somerset	0	2	4
St. Mary's	4	18	4
Talbot	5	2	7
Washington	10	6	9
Wicomico	0	6	7
Worcester	6	6	2
Total State	499	540	579

3.2. MSDE Audit program

Under COMAR school systems are audited by the MSDE approximately every two years. The audit primarily focuses on financial accountability of State aid programs. The last audit conducted on BCPS was concluded on March 14, 2016. The scope of the 2016 audit was “to review the financial and statistical reports of BCPS and relate to State Aid programs; ‘Bridge to Excellence Programs’.”³⁶ The audit determined some transportation issues. Contained in the Audit Report under **Finding 4: Student Transportation** – “Documentation verifying compliance with COMAR training and safety requirements not properly maintained.” The audit identified the following deficiencies:

- Regulation .06A(4) requires that a school vehicle driver trainee have not evidence of a criminal record which in the opinion of the local supervisor of transportation, make the individual unfit for employment. However, two (2) of the school vehicle drivers in our 2011 sample were not documented as having a complete set of criminal background check results. At a minimum, the criminal history record

³⁶ See Motor Carrier Attachment 18, MSDE Audit of BCPS.

information should be maintained as long as the subject of the background check is an employee.

- Regulation .06A(6) states the school vehicle driver shall pass an annual appropriate medical evaluation as stated in COMAR 11.19.05.01. However, one (1) of the school vehicle drivers in our 2011 sample was not documented having passed a pre-service medical examination for the 2011 school year.
- Regulation .06A(7) states the school vehicle driver shall receive a negative controlled substances test result under Regulation .10 of this chapter. However, one (1) of the school vehicle drivers in our 2011 sample was not documented as having a pre-employment drug test performed.
- Regulation .06C(1) states that the school vehicle driver shall be evaluated at least once every two years by the school driver instructor. However, 22 of the school vehicle drivers in our 2012 sample, as well as 14 of the school vehicle drivers in our 2011 sample were not documented as having been evaluated within a two year period.
- Regulation .09D(1) states for pre-service, the school vehicle attendant shall before riding on the bus with students on board, complete two hours of pre-service instruction, which includes at least one hour of instruction on first aid. Our 2011 sample was not documented as having received the required minimum pre-service instruction.
- Regulation .09D(2) states that a school vehicle attendant annually shall complete two hours of in-service instruction in topics that include equipment, student management and first aid. However, two (2) of the vehicle attendants in our 2012 sample and five (5) of our 2011 sample were not documented with having completed the two hour in-service instruction.
- Regulation .12(A) states that three safety inspections and a preventative maintenance inspection shall be conducted annually in accordance with MVA regulations. However, three (3) of the school buses in our 2012 sample and two (2) in our 2011 were not documented as having received inspections.

3.3. MSDE Driver Disqualification Program

Under COMAR §13A.06.07.07 “School Vehicle Driver Disqualifying Conditions and Termination” drivers can become disqualified based on driving records, criminal conduct, crashes, or other actions deemed unsafe by the supervisor of transportation. Disqualification could be for any of the following reasons:³⁷

- Positive Drug Test or No Show for Drug Screen

³⁷ See Motor Carrier Attachment 19- MSDE Driver Disqualification Report.

- Driving Record (3 or more points)
- Criminal Conduct
- Unsafe Actions
- Accidents
- Other Administrative Action

The MSDE maintains a confidential database of school bus drivers that meet disqualification under COMAR. The database provides such information as the driver’s name, the reason for the disqualification, and the length of disqualification. Some disqualification reasons are classified as “lifetime ban” for serious offenses such as: child abuse; while other infractions such as: driving record infractions; have a specific statute of limitations. Transportation managers in the Maryland school districts are required to verify with MSDE that perspective school bus drivers “are not” listed on the disqualified database before hiring. According to MSDE officials, the accident driver was not on the disqualified driver list at the time of the crash and had never been placed in the disqualified driver database. For additional information concerning COMAR and MSDE oversight of driver disqualification see the *Human Performance Group Chairman’s Factual Report*.

4. City Oversight: Baltimore City Public Schools

BCPS serves the need of public education in the City of Baltimore, Maryland. It is the fourth largest public school system in the State of Maryland. The Baltimore City school system is comprised of 190 schools that covers a 10-mile radius. The BCPS have approximately 83,000 students and have an operating budget of \$1.23 billion.³⁸

4.1. Pupil Transportation Resources

The City of Baltimore provides transportation to school children through four means: 1) City owned yellow school buses 2) Contracted privately owned yellow school buses, 3) MTA transit buses and 4) Taxi service. At the time of the crash, BCPS had approximately 10 contractors that operated school bus routes for pupil transportation. AAAfordable was awarded a five-year school bus contract for BCPS that was effective July 1, 2013 until June 30, 2018.³⁹

4.2. Contracted School Bus Services

The general scope of contracted school bus operations consists of: supplying buses, aides for daily transportation to and from school, special education transportation, noontime kindergarten transportation, and after school activities and support programs that include athletic trips. The contract is designed to cover overhead costs to include: bus driver salaries, school bus aide salaries, bus maintenance, fuel, insurance and any other direct or indirect costs. The contract mandates limits of the liability insurance policy shall not be less than \$1,000,000 per injury or

³⁸ See Motor Carrier Attachment 5 - BCPS Request for Proposal.

³⁹ See Motor Carrier Attachment 20- AAAfordable BCPS Contract.

fatality. The contractor shall also carry property damage coverage in the amount of \$100,000 per occurrence.

4.2.1. Contractor Qualifications

Contractors must provide BCPS evidence of knowledge and experience in order to qualify for a school bus contract. The operational record of the contractor is based off the following criteria:

- Type and scope of verifiable training and supervisory activities
- The type of operations performed
- The history of the proposer’s management, dispatch, safety and training staff in performing pupil transportation services
- On-time performance record
- Incidents of unacceptable driver conduct
- Previous compliance with contract specifications and conditions
- Previous compliance with operational guidelines and directives
- History of major defects by inspections of buses for the last 5 years
- Provide information regarding failure to report to scheduled inspections on time over the past 5 years.

Contractors must comply with all Federal and State laws and rules, as well as policies and procedures of the BCPS. Other considerations in the bidding criteria includes: contractor accident history, previous compliance of contractor conditions, and compliance with BCPS directives. Additional conditions and stipulations are outlined in the BCPS contractor bid proposal.⁴⁰ Up until July 1, 2014, the school bus contracts included insurance coverage for all contractor buses under the BCPS’s liability policy. At the time of the crash however, AAAfordable held the insurance coverage on the accident bus.

4.3. Legal Compliance

According to Section 3.12 of the BCPS contract states: “It shall be the contractor’s sole responsibility to ensure that it performs its obligations set forth in the contract documents in accordance with all applicable Federal, State, and local laws, regulations, and Board policies and procedures which relate to said performance. If the contractor fails to maintain compliance with said requirements the Contractor shall be in default.” Additionally, Section b states: “Employees of the Contractor who will be placed in a City School but will not have direct contact with students must have on record a Criminal Justice Information Service (CJIS) and NCIC background checks.

⁴⁰ See Motor Carrier Attachment 5- BCPS Request for Proposal.

Copies of background checks must be forwarded to the contract monitor before services can commence. Every two years the Contractor must submit copies of background checks to the contract monitor. Should any employee be flagged during the term of this agreement, the contractor shall contact the contract monitor with 24 hours of notification. Violation of this provision may result in termination for cause.” As a result of this crash, the BCPS terminated the contract with AAAfordable on November 21, 2016. According to BCPS officials the school system had the “discretion to terminate” the \$4.3 million-dollar contract “at any time.”⁴¹

4.4. BCPS Standard Operating Procedures (SOP)

The BCPS Office of Pupil Transportation provided NTSB investigators with a copy of the Standard Operating Procedure Manual (SOP) for the transportation department. The mission of the SOP is to “establish standard operating procedures (SOPs) that are intended to ensure structure, uniformity, efficiency, and continuity of effort in the provision of related administrative, operations and maintenance support functions.”⁴² The BCPS SOP consists of 15 sections. Specifically, Section 3 outlines policies and procedures for safety and training.

The SOP states: the “Director of Pupil Transportation or his/her designee is responsible for the development of program procedures and guidelines to ensure compliance with this SOP. The Director, Office of Pupil Transportation or his/her designee and the transportation management and supervisory staff are responsible to ensure that the SOPs are updated as required and to develop and implement future SOPs that may be needed. Office of Pupil Transportation management and supervisory staff are responsible to know the SOPs contained in the manual, apply the SOPs in the performance of their duties, promulgate the SOPs to subordinate staff, and ensure subordinate staff’s compliance with the SOPs. Subordinate staff is responsible to be thoroughly familiar with SOPs that pertain to their respective areas of responsibilities and duties.” The SOP further states that the City Office of Human Capital shall administer the hiring process and compliance for City employed school bus drivers. “The Office of Pupil Transportation however shall maintain all documentation related to school bus personnel employed by City Schools contractors.” The following sections highlight several elements germane to qualification standards applicable to the accident driver.

4.4.1. Pre-Service Certification of School Bus Personnel

According to the SOP, the Office of Pupil Transportation is responsible to ensure that all school bus personnel and taxicab drivers are certified prior to being placed into service. This includes making certain that all required pre-service documentation (criminal background check reports, medical examination reports, and drug testing) are maintained on file. For school bus drivers, this also includes ensuring the driver possess valid Maryland CDL with proper endorsements and valid DOT physical card. All school bus drivers must meet the standards established by COMAR and Federal regulations. Prior to being placed into service, school bus drivers must have background checks conducted by the CJIS. CJIS sends a report via email to the Safety and Training Officer for review for compliance with COMAR. Per the BCPS records, the

⁴¹ Retrieved from: <http://foxbaltimore.com/news/local/baltimore-city-schools-terminate-contract-with-bus-company-in-fatal-crash>

⁴² See Motor Carrier Attachment 21- BCPS Pupil Transportation SOP.

only CJIS record on file for the accident driver was dated September 2, 2008. For additional information concerning CJIS see the *Human Performance Group Chairman Factual Report*.

4.4.2. In-Service Training of School Bus Personnel and Medical Examination

The Director of Office of Transportation was responsible for the development and administration of the school bus driver in-service training program. The one-day training class will consist of a minimum 6-hour block of instruction. In-service training is required annually. Although Federal DOT physical certificates are normally valid for 2 years; under COMAR, school bus drivers must obtain their medical certification annually. This is typically conducted during the annual in-service time frame. According to the BCPS records, the accident driver received his last in-service training on July 7, 2017.⁴³

4.4.3. Random Drug and Alcohol Testing

The Office of Pupil Transportation is to ensure that school bus drivers are drug and alcohol tested as required by COMAR and Federal DOT regulations. In accordance with COMAR Title 13, City Schools Office of Pupil Transportation is responsible to implement the drug and alcohol testing program for school bus drivers employed by BCPS contractors. The BCPS manages two separate random drug testing selection pools. One pool is designated for Baltimore City employees and the second pool is for contracted school bus drivers. The NTSB confirmed that at the time of the crash, the accident driver was listed in the contractor school bus driver selection pool. Per the SOP, school bus drivers who test positive for controlled substances or alcohol would be classified as disqualified under COMAR and subject to termination.

4.4.4. Post-Accident Drug and Alcohol Testing

Under the SOP provisions, post-accident drug and alcohol testing for employee of City School contractors is accomplished through a contractual agreement between City Schools and a licensed medical facility (Concentra) who is certified to conduct post-accident drug and alcohol testing in compliance with COMAR and DOT regulations. “Under the agreement, the contracted licensed medical facility in coordination with Office of Pupil Transportation, who are involved in accidents are sent in timely manner for post-accident drug and alcohol tests in accordance with COMAR and the DOT regulations.”

4.4.4.1. Post-Accident Drug and Alcohol Testing Issues

Identified in the driver’s file maintained by BCPS were four (4) post-accident DOT drug tests and one (1) DOT alcohol test that all showed negative test results. Under §382.303(a) and (b) a post-accident drug and alcohol test is conducted when one of the following conditions are met: 1) results in a fatality; or 2) if the accident involves bodily injury requiring immediate medical treatment away from the scene and the driver is issued a citation; or 3) if the accident results in disabling damage to any motor vehicle that requires a tow away and the driver receives a citation. According to the file maintained by the BCPS, none of the accidents met the post-accident requirements of §382.303 (a) and (b).

⁴³ See Motor Carrier Attachment 22- Accident Driver In-Service Training.

4.5. Accident Notification Procedures

Section 3.6 of the SOP identifies procedures for accidents involving contracted school buses. The SOP was last updated on November 2009. The SOP states that the “Transportation Safety and Training staff has primary responsibility for the intake and handling of school bus accidents.” Certain circumstances that may require special instructions when a school bus accident involves:

- Students on board
- Student, bus personnel, or others sustain injuries
- If there is appreciable damage of \$1500 or more
- Suspected or actual criminal activity
- There are unusual conditions or concerns

Other considerations include instructions on how to handle the notification of parents, assigning office staff to medical facilities and making statements. The SOP did not provide instructions or operational procedures concerning the steps in conducting school bus accident investigation. For example, the SOP did not address:

- Forms required for documenting a school bus accident.
- Procedures or actions required by the school bus contractor.
- Procedures or actions required by the school bus driver.
- Procedures or actions required by the Transportation Supervisor.
- Procedures how to preserve evidence, photos, or taking witness statements.
- How to address unusual events such as if a driver had a medical event.
- Required documentation to be maintained by the Transportation Department.
- Guidance regarding to the number of accidents a driver could have in a given period.
- Guidance regarding disciplinary action for a specific infraction.
- Protocols in conducting an accident investigation by qualified personnel to determine preventability, and/or compliance with COMAR.

4.5.1. School Bus Accident Procedures

Although the SOP did not have a section dedicated to school bus accident procedures, there is was a section (3.6) that is entitled “Accident Notification Intake and Response Procedures.” Under this section, “the Safety Office Supervisor or his designee shall review accident reports for completeness and accuracy, file and distribute the reports in accordance with standard operating procedures, and log the reports in the electronic data file.” A review of the crash file for the accident driver indicated however, that numerous entries left blank on the reports.⁴⁴ Missing entries on the crash reports for the accident driver included the following:

1. Agency name left blank
2. Bureau name (i.e. contractor) left blank
3. Business phone number left blank
4. Supervisor’s signature left blank

⁴⁴ See Motor Carrier Attachment 23- BCPS Crash File for Accident Driver.

5. Safety Officer's signature left blank
6. Bus chassis make left blank
7. Tag number for bus left blank
8. Driver's license expiration date left blank
9. Home phone number left blank
10. Name of employer left blank
11. Insurance information for vehicle 2 left blank
12. Point of impact left blank
13. Witness area left blank
14. Street, highway, intersection where the accident happened left blank
15. Extent of damage left blank
16. Owner's information left blank
17. Owner's address left blank
18. Owner's insurance company left blank
19. Owner's insurance policy number left blank
20. Supervisors signature left blank

The file also contained an incident involving the accident driver that occurred on September 8, 2011. On the incident date, the accident driver broke route and failed to pick up a child. The incident was recorded in a series of emails. There was no BCPS official incident report or form utilized. Missing from the incident report is an official account of incident, documentation of any disciplinary action and/ or remedial training, and the final disposition of the investigation.

Lastly, the SOP was silent on disciplinary actions for school bus drivers. Industry best practices typically prescribe verbal warning, suspension, and then if necessary, termination. Specifically, the SOP failed to provide guidance for the number of days suspension for an infraction, (i.e. 1 day, 1 week, or 30-day suspension for example). Of note, the driver received a 90-day suspension for the September 23, 2015 accident. According to the driver's file however, the accident driver's suspension was lifted at 72 days.⁴⁵ When the BCSP Transportation Supervisor was questioned about disciplinary action if there was any set criteria or policy for disciplinary actions, he stated "no." When asked why was the accident driver's suspension was lifted early, he said "we thought it was long enough."

4.5.2. BCPS Accident Tracking

Per the BCPS Pupil Transportation Manager, school bus accidents are tracked using an Excel spreadsheet.⁴⁶ As highlighted in **Table 3** BCPS reported to MSDE that there were 28 school bus crashes in 2016. According to the database maintained by BCPS however, their tally for 2016 was 230.

⁴⁵ Ibid.

⁴⁶ See Motor Carrier Attachment 24- BCPS Accident Tracking File.

4.6. Biennial Driver Evaluations

COMAR 13A.06.07.06C (1) requires a qualified driver instructor evaluate each school bus driver every two years. This regulation requires that a BCPS qualified instructor conduct a road test with the school bus driver. The accident driver was last evaluated on September 14, 2015.

4.7. BCPS Driver File

The BCPS provided a driver file on the accident driver. The file maintained by the BCPS for the accident driver contained the following elements:⁴⁷

- Pre-service Information
- Letters and notices
- In-Service Information
- Drug and alcohol Testing
- Background Checks
- Accident Information
- Activity Log

According to the BCPS driver file, the accident driver started as a contracted school bus driver on 2008 working for City Wide Bus Company. The BCPS driver file did not however have any records showing employment with City Wide Bus Company in 1997 or contain the accident that was reported to MSDE in 1997.

4.7.1. School Bus Driver Accident File

NTSB investigators determined that the accident driver had sustained a 5th crash that occurred on July 19, 2016 that was not contained in the driver's accident file. This 5th crash occurred during the four-month period when the driver left AAAfordable and went to work for another school bus contractor (Reliable Transportation). For additional information concerning the driver's accidents see the *Human Performance Group Chairman's Factual Report*.

According to the BCPS records, the driver had four accidents and one incident in his file.⁴⁸ A summary of the driver's accidents are detailed in **Table 4**.

Table 4. Accident Driver Crash History File

Date	Carrier	Description
9/7/2011	Reliable Transportation	Backed into parked car
10/14/2011	Barber Transportation	Driver passed out -struck 3 poles and hit parked car
3/02/2012	C&T Transportation	Sideswipe parked car
9/23/2015	AAAfordable	Hit parked car
Not on File with BCPS		
7/19/2016	Reliable Transportation	Hit parked car

⁴⁷ See Motor Carrier Attachment 25- AAAfordable Accident Driver DQ File.

⁴⁸ Incident report by BCPS documents the accident driver broke route and failed to pick up a student. See Motor Carrier Attachment 23 for further details.

4.7.1.1. Compliance with COMAR

According to COMAR, all accidents should be monitored for appreciable damages not to exceed \$1500. Drivers who exceed two accidents with appreciable damages in excess of \$1500 within a 24-month period would be disqualified for 5 years. The driver's accident file contained only one insurance claim that was for September 7, 2011 accident.⁴⁹ The total loss for that accident was \$1083.00.

The NTSB obtained loss run report for the October 14, 2011 accident. Annotated on the insurance report generated by Baltimore City accounting department was the following statement:

“Claim Description: **STOPPED AT LIGHT AND PASSED OUT AT WHEEL**”

According to the loss run report for the October 14, 2011 crash the total claim was \$1820.00. The NTSB also obtained the loss run report for the accident on March 2, 2012, and this claim showed \$0 (no payout) for loss. Adding the loss runs for the September 7, 2011 crash (\$1083.00) and the loss run for the October 14, 2011 crash (\$1820) would equal \$2903.00. Also missing from the driver file was the insurance claim for the July 19, 2016 accident obtained by NTSB investigators that had appreciable damages of \$3,859.87.⁵⁰

4.8. Transportation Supervisor Interview

The Safety and Training Supervisor for BCPS was interviewed by the NTSB.⁵¹ Per the supervisor, he had been the position since 2003 (13 years). Prior to holding this position, he was a supervisor and operations manager for Durham School Services LLP, also a BCPS contractor. Per the supervisor he stated his job was to investigate accidents and incidents involving contracted school buses and check for driver compliance and driver certification training. The supervisor also stated that he maintained the driver files and drug testing program up until in 2014.

The accident driver's file was presented to the supervisor and he was asked specific questions regarding the contents of the file, accident paperwork and general procedural questions. Below is summary of those accounts:

1. **Accident on October 14, 2011:** When questioned about the 10/14/2011 accident the BCPS Transportation Supervisor stated that he did recall the accident, however did not remember reviewing the documents he was shown. The accident included a supplemental report that contained a handwritten statement from the aide on the bus. The supervisor again stated he could not remember and further stated “I have never seen that document before.” The BCPS accident report that was reviewed by the supervisor included the following section: “Describe accident in detail below, indicating all damage. Include origin and destination.” The following response was written by the accident driver shown in **Figure 1**.

⁴⁹ See Motor Carrier Attachment 26- Loss run report for October 14, 2011 Accident.

⁵⁰ See Motor Carrier Attachment 27- Reliable Transportation Accident Report dated July 19, 2016.

⁵¹ See Motor Carrier Attachment 28- BCPS Transportation Supervisor Interview.

I had Picked up a child
at 2203 Roslyn than went
to the ^{stop} light at Garfield +
Clifton and don't remember
anything until the policeman
told me that I had passed
out. ~~Robert A. Chappell~~

Figure 1. Accident detail on BCPS Accident Report 10/12/2011

The supervisor was questioned if the BCPS had a policy or procedure for when a driver passed out or had a medical event. He replied “no.” The NTSB also questioned the supervisor “would you require the driver to see a doctor and get clearance to return to duty?” He replied “no.”

2. **Accident on 7/19/2016:** The transportation supervisor was questioned about the fifth accident on July 19, 2016 that was provided by Reliable Transportation and was not part of the accident file provided by the BCPS.⁵² The Transportation Supervisor stated that he had never seen the report. Additional BCPS representatives present during the NTSB interview disputed the authenticity of the accident report, police report, and workers compensation claims that were presented to them. The NTSB also presented email correspondence showing that Reliable Transportation officials reported the accident to the supervisor as well as three other BCPS transportation officials. The emails indicated that the supervisor acknowledged receipt. When questioned again by NTSB investigators, the supervisor stated, “I don’t recall.” A copy of the email correspondence is documented in **Figure 2**.

⁵² See Motor Carrier Attachment 27- Reliable Transportation Accident Report dated July 19, 2016.

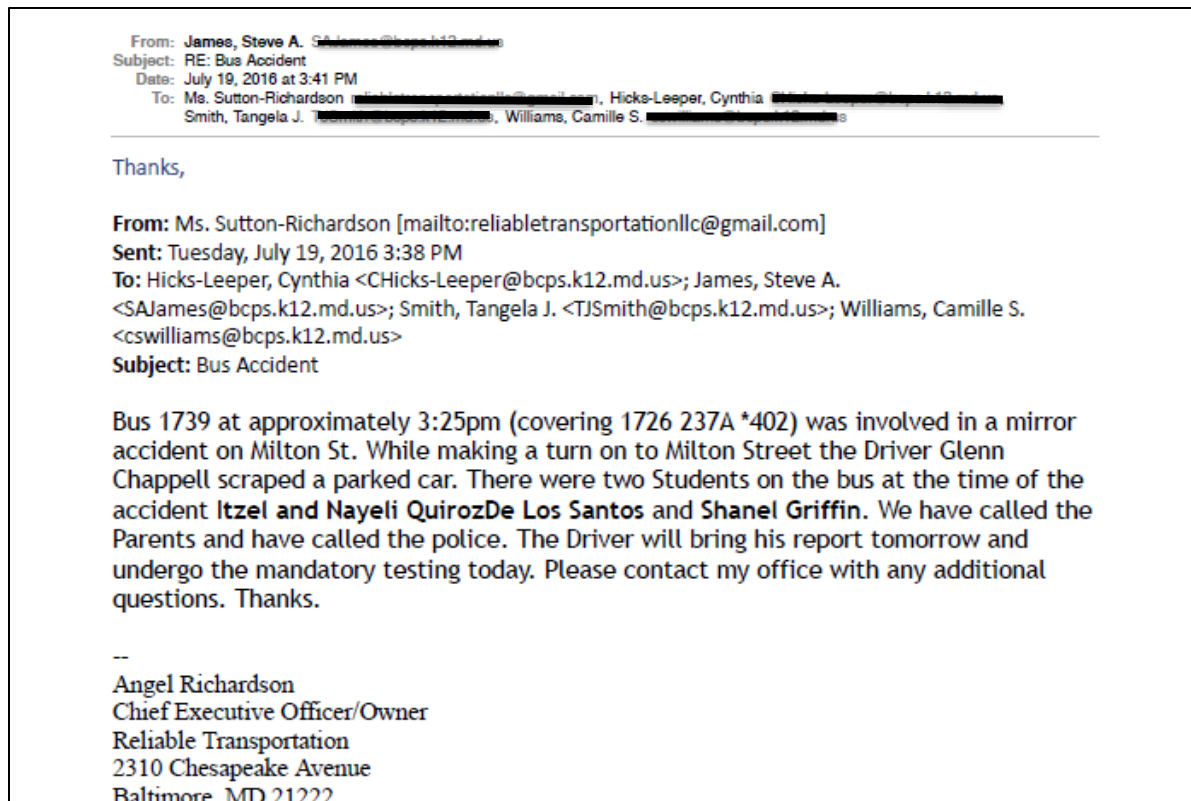


Figure 2. Email acknowledgement from Transportation Supervisor

At the time of the NTSB interview, the supervisor was still responsible for vetting incoming bus accidents. The supervisor added that as of October 2016 their department had started an Accident Review Board to determine whether an accident was “preventable” or “non-preventable.” He stated it consisted of himself and five additional persons on the board who were driver trainers. When asked if their process annotated causal factors to consider impairment, fatigue, mechanical operation; he replied “no.” The supervisor was asked “prior to the Review Board how were accidents determined to be preventable or non-preventable?” The supervisor stated he and his safety team would make the determination. When asked if this was put into a report or memorialized in any manner he replied “no.”

4.8.1. Additional Transportation Staff Interviews

The NTSB conducted additional interviews with members of the BCPS Transportation staff.⁵³ According to the Interim Director the supervisor was still responsible for vetting and tracking school bus accidents. According the Interim Director accidents were tracked using an Excel spread sheet. Accidents are recorded for the fiscal year from July 1 to June 30 per year.⁵⁴

⁵³ See Motor Carrier Attachment 29- BCPS Transportation Staff Interviews.

4.8.2. Driver Trainer Interview

According to the driver trainer who was interviewed, her duties and responsibilities included going to the accident scene, taking pictures and interviewing witnesses. Additionally, she stated she was responsible to track if there were any claims filed and that she reports specific accidents to the MSDE when required. Per the driver trainer she stated that she was familiar with the accident driver and had the opportunity to conduct a behind the wheel evaluation of the driver. According to the driver trainer her department uses a book to evaluate whether an accident is preventable or non-preventable. When asked about the accident that occurred on October 14, 2011 in which the driver passed out, she stated: “If that accident had come through me, that driver would have been pulled then.” She continued, “Under my watch, if the driver had passed out, basically I would have recommended to the supervisor that the driver be put on suspension until we can find out why the driver passes out.”

The driver trainer reviewed the accident file for the driver. When she reviewed one of the accidents she commented:

“I can tell you right now, I wouldn’t have received this one. It’s missing too much information. See, first off, one of the things that I do when something comes in is, if the driver does not have the information they’re supposed to have, I send it back. There’s no driver’s license information here. Nothing. None of this is filled out. This is something I would have never taken.”

Since the accident the BCPS instituted an Accident Review Board. The BCPS stated they held one meeting since this committee had been formed and that took place on November 2, 2016.

5. Accident Driver

5.1. Accident Driver Driving Record

At the time of the crash, the 67-year-old accident driver held a Maryland Class A CDL with the following endorsements: T- double and triple trailers, P- passenger, N- tank vehicles, and S- school bus. The CDL showed an issue date of September 2015 and an expiration date of June 2018. NTSB investigators identified significant issues with the accident driver’s CDL. Additional information concerning the accident driver’s driving record and history are outlined in the *Human Performance Group Chairman’s Factual Report*.

5.2. Accident Driver’s Driver Qualification File

AAAfordable officials produced a DQ file for the accident driver.⁵⁵ Written on the DQ jacket was “date of hire 5/5/2014.” Written above that date was “8/9/2016” and written below the that date was “rehire 4/4/2016.”

The DQ file consisted of the following items:

⁵⁵ See Motor Carrier Attachment 25- AAAfordable Accident Driver DQ File.

- Employment Application
- MVA report
- Medical certificate
- Criminal Justice Information System (CJIS) report- dated 9/3/2008

Missing from the driver’s file was a previous employer background check as required under §391.53 and annual review of violations.

5.3. School Bus Driver Medical Certification

Per COMAR, all school bus drivers must receive an annual medical evaluation and certification. According to the carrier files, the accident driver had a medical certificate showing an issue date of June 2016 and an expiration date of June 2017. The medical certificate indicated “National Registry Number 5427926492” which according to the FMCSA medical database, is an authorized medical examiner.

5.3.1. Accident Driver Medical Certification

NTSB investigators determined that the accident driver had a history of epilepsy. Under §391.41(b)(8) a commercial driver may be medically certified if the driver: “Has no established medical history or clinical diagnosis of epilepsy or any other condition which is likely to cause loss of consciousness or any loss of ability to control a commercial motor vehicle.” According to the accident driver’s long form however, the driver only self-reported Hypertension and Type II Diabetes.⁵⁶ The DOT medical long form under §391.41 requires the following certification:

“I certify that the above information is complete and true. I understand that inaccurate, false or missing leading information may invalidate the examination and my Medical Examiners Certificate

Driver’s Signature _____ Date_____”

Under §390.35 Making or causing to make fraudulent or intentional false statements or records and/or reproducing fraudulent records is considered an Acute violation under the FMCSRs that would warrant immediate enforcement action by the FMCSA. For further information concerning the accident driver’s medical certification and medical history see the *Human Performance Group Chairman’s Factual Report* and the *Medical Factual Report*.

5.3.2. Accident Driver Previous Employer Verification

The carrier stated that when reviewing the driver’s employment history, she noticed that he had been employed as a truck driver for several trucking companies. The carrier stated that she “was only concerned with City Wide since they were a school bus company.” According to the carrier, City Wide Bus Company was the only previous employer contacted. Located in the

⁵⁶ Ibid.

driver's DQ file was a JJ Keller *Federal Previous Employer Verification* form; however, the form was blank and did not contain any information or document the phone interview with the City-Wide Bus Company representative.

5.3.2.1. Previous Employment on Driver's Application

According to the AAAfordable driver application, the accident driver reported that he had worked at two trucking companies and one prior school bus driver position during his previous employment history. See **Table 5** for additional details.

Table 5. Accident Driver Application History Entries Provided to AAAfordable

Name of Company	Responsibilities	Date of hire	End Date
Triangle Trucking	Tractor-trailer driver	10/2011	10/2013
City Wide Bus Company	School bus driver	6/2009	5/2010
Marine Freight Company	Tractor-trailer driver	4/2000	5/2006

5.4. Accident Driver Employment History

Investigators reviewed drug testing records, accident reports, and conducted multiple interviews to ascertain the accident driver's previous CDL employment history. With the information available, the NTSB estimate the driver held 24 CDL driver positions during his career. NTSB investigators also determined that the accident driver attempted to work for another school bus contractor in Howard County Maryland. The accident driver was not hired however because he was classified as "not qualified" by the Howard County Pupil Transportation Department due to his criminal history documented by CJIS and CDL driving history infractions.⁵⁷

NTSB investigators determined that the accident driver failed to disclose accurate information of employment history when he left one carrier to work for another. In some cases, the driver would start another school bus driver position while still employed at another. In 2016 for example, the accident driver applied for a City transit bus driver position.⁵⁸ The accident driver was hired and started the training phase of the position and was employed for a week. When the accident driver's background check came back showing "not meeting company standards" the driver was terminated. The accident driver did not complete the training program and did not operate a bus while employed at First Transit. The Reliable Transportation application and the AAAfordable employment applications did not list this position. The NTSB attempted to verify previous employment with other motor carriers. Several of the carriers listed had either gone out of business or in some cases exceeded their retention of records threshold. With the information available, **Table 6** provides an estimated summary of the driver's employment history.

⁵⁷ See Motor Carrier Attachment 30- Howard County Public School Interview.

⁵⁸ See Motor Carrier Attachment 31- First Transit DQ File.

Table 6. Accident Driver Employment History

Employment Dates	Carrier	Source
8/19/16 - crash	AAAffordable	AAAffordable
5/23/16 - 8/26/16	Reliable Transportation	Drug test / Reliable
4/22/16 - 5/5/16	First Transit	Tax records
5/5/14 - 4/4/16	AAAffordable	BCPS
7/22/13 – 10/15/13	City Wide Bus Company	BCPS & City Wide Records
~2/12-12/12	C&T Transportation ⁵⁹	BCPS
11/11 – 10/15/13	City Wide Bus Company	City Wide Records
10/10/11-10/14/11	Barber Transportation ⁶⁰	Barber Records
8/11/11 – 9/26/11	Reliable Transportation	BCPS
8/20/10 - ~11/10	City Wide Bus Company	Barber paperwork & Interviews
7/09 -12/09	C&T Transportation	Tax records & interview
5/12/09 - 8/27/10	City Wide Bus Company	City Wide Records
3/09 -12/09	Allender Construction Company	Tax records
1/09 -3/09	M. Gibbs & Company	Tax records
11/6/08 - 6/23/09	C&T Transportation	BCPS records
Not Employed		
N/A	Y & L Transportation ⁶¹	Drug Test
N/A	Tip Top Transportation	Howard County
Additional Employment		
Employment Dates	Carrier	Source
~6/20/12 - 6/24/14	Bobs' Transportation	BCPS
10/11-10/13	Triangle Freight	AAA application
~ 11/08	Roadway Trucking Co.	City Wide Records
10/00-11/00	Falcon Transport	Roadside Inspection
8/16/00	Eagle Systems	Roadside Inspection
3/21/00 – 3/28/00	Marine Transport	Roadside Inspection
~ 3/5/1996 - 3/5/1997	City Wide Bus Company	MSDE accident report
Unknown -10/31/1995	Bridge Terminal Transport	Crash report

5.4.1. BCPS Employment Discrepancies

Interview with BCPS officials indicated the accident driver had been employed eight times by various school bus contractors. Of note, the BCPS first account of the driver being employed

⁵⁹ See Motor Carrier Attachment 33- C&T Transportation Interview.

⁶⁰ See Motor Carrier Attachment 32- Mr. Poinsette Interview

⁶¹ See Motor Carrier Attachment 34- Y&L Transportation Interview.

as a contracted school bus driver was 2008. The NTSB however identified records that the driver had worked as a BCPS contracted school bus driver in 1997 from the MSDE accident report.

5.4.2. Accident Driver Break in Service with AAAfordable

During the initial NTSB interview with AAAfordable, the owner stated that the accident driver was hired on May 5, 2014 and resigned on April 4, 2016 and rehired on August 19, 2016. When the carrier was interviewed a second time on November 29, 2016, the carrier revised her statement and stated that the school bus driver did not return after spring break and “we didn’t terminate him.”⁶² The carrier further stated that after numerous attempts in to reach the driver “we simply put a substitute on his route.” The carrier stated that they finally reached the driver in August for the start of the new school year. The carrier stated the driver was rehired however, the carrier did not initiate a new DQ file or conduct a pre-employment drug screen.

A pre-employment drug test obtained by NTSB investigators determined that during the 20 weeks (5- month) break in service from AAAfordable, the accident driver was hired as a school bus driver at Reliable Transportation, also a BCPS contractor.⁶³ The NTSB determined that the accident driver was employed at Reliable from April 10, 2016 to August 26, 2016. According to Reliable officials, that is when the driver had been involved in the school bus crash on July 19, 2016.⁶⁴

According to Reliable officials, the driver had another incident when he “passed out” on a school bus in August 2016. The bus was not occupied by students at the time of the medical event and there was no damage to the school bus and no injuries. The driver was taken by ambulance to the hospital. The driver was instructed to report to Concentra for a medical evaluation. The driver was instructed by Reliable management that the driver could not report back to work and drive until he was evaluated by his doctor and had received a medical release stating he was cleared for duty. The driver however never reported back to Reliable and instead went back to driving for AAAfordable. When Reliable Transportation owners were interviewed, they thought the accident driver was still an active driver on their payroll and had no knowledge that he left to work for AAAfordable. According to Reliable Transportation records, the driver last clock-in date was August 26, 2016 but did not operate a bus. Because there were no injuries and no damages the incident was not reported to BCPS.

5.4.2.1 Reliable Transportation Medical Event

At the conclusion of the investigation, the NTSB was notified of a medical event on June 30, 2016 that involved the accident driver that had not been previously disclosed to investigators. The 9-1-1 audio clip obtained by the NTSB stated that a Reliable Transportation school bus aide called for an ambulance because “her driver had dropped to the ground and was having a seizure.”⁶⁵ According to the EMS report, the driver was transported to Sini Hospital for a “seizure.” According to the EMS and hospital report, the accident driver was transported to the hospital and

⁶² See Motor Carrier Attachment 3- AAAfordable Interview.

⁶³ See Motor Carrier Attachment 35- Reliable Transportation Documents.

⁶⁴ See Motor Carrier Attachment 27- Reliable Transportation Accident Report dated July 19, 2016.

⁶⁵ See Motor Carrier Attachment 44, 9-1-1 Transcript dated June 30, 2016.

treated.⁶⁶ While the accident driver was being treated at the hospital, he removed the IV in his arm and walked out of the hospital.

On October 17, 2017, the NTSB interviewed the Reliable Transportation school bus aide, accident driver's supervisor and company operations manager.⁶⁷ The school bus aide stated that she witnessed the accident driver have a "seizure" and called 9-1-1. She further stated that she reported the incident to her supervisor. The supervisor stated that she went out on-scene and recovered the bus, however did not conduct any of investigation regarding the driver's medical condition and did not require the accident driver to produce a medical note stating he was cleared for duty. The Reliable Transportation's Operation Manager stated he had "no knowledge of any of the events since he had left for the day."

On October 26, 2017 the NTSB interviewed the Owner and Chief Legal Officer of Reliable Transportation.⁶⁸ The Owner of Reliable stated that she was informed by staff that the accident driver had a medical event on June 30, 2016, however was not directly involved in any discussions with the driver. During the first interview with the Reliable owner in November 2016, it was believed that the accident driver had a medical event in August 2016. During that interview, the Owner informed the NTSB that the accident driver had a medical event involving a school bus and a bus aide had called for an ambulance. This however was determined not to be accurate. Clarification of the paperwork and subsequent interviews indicate the medical event recalled by the Reliable Owner during the first interview was in fact the June 30, 2016 event. A query with Baltimore Maryland Fire Department indicates there were no 9-1-1 calls involving the accident driver in August 2016.

According to Reliable Transportation payroll records, the accident driver returned to work to operate a school bus on July 5, 2016 and continued his daily school bus route until August 12, 2016. The accident driver did not have any additional clock in times on his time card until August 26, 2016. On that date the Owner stated that Reliable staff spoke to the accident driver and instructed him to be medically evaluated by Concentra. According to Reliable Owner and payroll records the driver did not return after that date.

5.5. Accident Driver Hours of Service

AAAffordable utilizes a biometric (fingerprint scan) time clock for recording driver's hours of service (HOS).⁶⁹ According to carrier records the accident driver worked a set route. A review of the carrier time reports indicated the accident driver worked approximately 5.0 to 5.5 hours each day operating a school bus route Monday through Friday.⁷⁰ The carrier stated that as far as they knew, AAAffordable was his only employment. The carrier stated that the accident driver made occasional charter school trips during his normal shift. The last for-hire charters conducted by the accident driver was on October 17, 2016 and October 18, 2017 that were for local intrastate trips.

⁶⁶ See Motor Carrier Attachment 45- EMS Reports dated June 30, 2016.

⁶⁷ See Motor Carrier Attachment 46- Reliable Transportation Bus Aide, Supervisor and Operations Manager Interviews

⁶⁸ See Motor Carrier Attachment 47- Reliable Transportation Owner and Chief Legal Officer Interviews

⁶⁹ See Motor Carrier Photo 3.

⁷⁰ See Motor Carrier Attachment 36- AAAffordable Accident Driver's Time Records.

Payroll records indicated that the driver is paid \$17.00 per hour. Additionally, the carrier stated the accident driver had a 6 hour per day minimum guarantee.

The carrier produced the last 30 days of time records for the accident driver. It was noted on Monday October 24, 2016 the time record showed the accident driver “Off-Duty.” The NTSB questioned the carrier why the driver had 0 hours for that day. The carrier told NTSB investigators that the driver requested unpaid leave to attend a funeral.

5.5.1. Discrepancy in Accident Driver’s HOS

During the follow up interview on November 29, 2016, the carrier recanted her explanation of the accident driver’s absence and stated that “he did not attend a funeral on October 24.” According to the carrier she “forgot” to mention to investigators that on “October 24 the driver did report to work.” The carrier stated that upon arrival to the AAAfordable office, the accident driver “passed out” or had a “medical event of some kind” in front of the dispatcher. A 9-1-1 call was placed by the carrier dispatcher and an EMS unit came to the office.⁷¹ Shortly after the EMS arrived, the driver “came to” and reported to the EMS that “it was probably something that I ate and did not agree with me.” The accident driver told EMS workers that he was “fine” and refused medical treatment and was not transported to the hospital. The AAAfordable dispatcher did not allow the driver to work on October 24. Both the dispatcher and the carrier owner instructed the driver to go to get evaluated by his physician and bring in a doctor’s note stating he could be released for duty. The accident driver returned the following day and failed to produce the doctor’s release, the driver was dispatched on October 25 and the remainder of the week until the crash date without producing a release from the driver’s doctor.^{72,73}

5.5.2. Accident Driver’s HOS Work Schedule

From the information available, the driver did not appear to exceed the Federal HOS regulations. NTSB investigators could not determine if the accident driver performed any additional compensated work or had any additional duty hours outside of AAAfordable. **Table 7** summarizes the accident driver’s HOS 7 days prior to the crash. For additional information on the accident driver’s 72-hour work history see the *Human Performance Group Chairman Factual Report*.

Table 7. Accident driver’s Hours of Service

Date	Day of the week	Hours on duty	Source
October 24, 2016	Monday	0	Carrier time card
October 25, 2016	Tuesday	5.25	Carrier time card
October 26, 2016	Wednesday	5.55	Carrier time card
October 27, 2016	Thursday	5.25	Carrier time card
October 28, 2016	Friday	5.25	Carrier time card
October 29, 2016	Saturday	0	Carrier time card
October 30, 2016	Sunday	0	Carrier time card
October 31, 2016	Monday	5.25	Carrier time card

⁷¹ See Motor Carrier Attachment 37- EMS report.

⁷² See Motor Carrier Attachment 3- AAAfordable Interview.

⁷³ See Motor Carrier Attachment 38- AAAfordable Dispatcher Interview.

November 1, 2016	Tuesday	~00:33 minutes	Carrier time card
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6. AAAfordable Vehicle Maintenance

Vehicle 1 in this accident was identified as a 2015 IC 64 passenger school bus. The carrier provided maintenance and service records for the 2015 school bus also known as unit 1876. The accident driver had been assigned to 1876 and performed a daily vehicle inspection report each day it was operated. The carrier provided driver vehicle inspection reports (DVIRs) that reflected “no defects” for the week prior to the accident. The maintenance records indicated that school bus was on a schedule of services and appeared to have a systematic method of repairs and services in compliance with §396.3. School bus inspections occur at a minimum of three times per year (summer, fall and spring). School bus inspections are coordinated by BCPS and conducted by the MVA inspectors. The last periodic inspection conducted on the accident school bus was July 18, 2016.

The carrier stated that their mechanic conducted limited/small repairs on their fleet and would send the buses to a repair shop for heavy maintenance. The NTSB interviewed the carrier mechanic regarding the mechanical operation of the school bus and carrier’s maintenance program. Per the mechanic, there were no known mechanical issues or defects with the school bus.⁷⁴ The MCMIS Carrier Profile did not show any roadside or accident information regarding unit 1876. Per carrier records, the school bus was in a previous accident on September 23, 2015 involving the accident driver as noted in **Table 4**, but sustained only minor bumper damage. For additional information concerning the mechanical operation of the accident bus see the *Vehicle Group Chairman’s Factual Report*.

6.1. Contractor School Bus Requirements

By contract, BCPS requires school buses to meet minimum specifications and standards.⁷⁵ Contractors must comply with USDOT regulations, and specific requirements outlined in COMAR §13A.06.07. Such requirements include: minimum seating capacity, wheelchair lift capabilities, left swing “stop” sign compliance, and safety glass requirements. Contractors may not allow any school buses may not remain in service for more than 8 years.

7. Maryland Transit Administration Operations

The Following sections will discuss the operations of Vehicle 2 that was owned and operated by the Maryland Transit Administration. The MTA is a State-owned mass transit agency that services the greater Baltimore-Washington, DC metropolitan area. The MTA falls under the Maryland Department of Transportation. The MTA is comprised of 4 divisions: Heavy Rail, Light Rail, Bus and Paratransit (mobility) Operations. It also manages the City taxi system. The MTA also operates their own Police Department (PD) with approximately 150 police officers. The MTA provided investigators an overview of the hiring process, training procedures and operating procedures for the MTA which are highlighted in the following sections.

⁷⁴ See Motor Carrier Attachment 39- AAAfordable Mechanic Interview.

⁷⁵ See Motor Carrier Attachment 5- BCPS Request for Proposal.

7.1. Federal Oversight

Under the general applicability §390.3(f)(2) entities are exempt from the regulations if: “transportation performed by the Federal government, a State, or any political subdivision of a State, or an agency established under a compact between States that has been approved by the Congress of the United States.” The MTA is exempt from the FMCSRs with the exception of Part 382 drug/alcohol testing and Part 383 CDL.

7.1.1. Federal Transit Administration

The Federal Transit Administration (FTA) is one of the modal agencies within the US Department of Transportation (USDOT). The FTA provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys and ferries. The FTA also oversees safety measures and helps develop next-generation technology research. The FTA administers a national transit safety program and program compliance oversight process to advance safe, reliable, and equitable transit service throughout the US. The FTA has limited oversight and inspection requirements of the Maryland Transit Administration (MTA). The FTA conducted an on-sight inspection of the MTA on June 17, 2016, that was classified as a review of the “MTA’s compliance with Federal requirements, and examination of grant management practices.” An FTA investigator was present during the on-scene portion of the crash investigation. The FTA did not generate a separate report of the investigation and did not identify any violations that would require the FTA to initiate any enforcement action against the MTA.

7.2. MTA Safety Program

At the core of the MTA safety culture is the Maryland Transit Administration System Safety Program Plan (SSPP).⁷⁶ The SSPP is reviewed and updated annually. The last update was January 2016. “The SSPP has been developed as a means of integrating safety into all MTA operations and services. The SSPP establishes mechanisms for identifying and addressing hazards associated with MTA operations and provides a means of ensuring that proposed system modifications are implemented with thorough evaluation of their potential effect on safety.” The goal is to reinforce safe work practices aimed at identifying risks and reducing accidents and incidents. The MTA models its program after the FTA requirements for safety systems as outlined under 49 CFR Part 659. The term “safety system” is defined by the USDOT as the “the application of operating, technical and management techniques and principles to safety aspects of a system throughout its life to reduce hazards to the lowest practical level through the most effective use of resources.” These concepts were embraced in the development and implementation of their SSSP.

7.2.1. MTA Safety Survey

The MTA begins its annual evaluation of safety by conducting an internal safety survey. The last internal assessment graded by its employees as 6.6. out of 10. The survey consisted of 250 questions that evaluated six core management safety categories which included:

- Risk and review

⁷⁶ See Motor Carrier Attachment 40- MTA System Safety Plan.

- Knowledge and Competence
- Compliance and Accountability
- Plans, programs, policies and procedures
- Values and Culture
- Leadership

7.2.2. Bus Operator Hiring Procedures and Training

Transit bus operator applicants hired by the MTA must be at least 21 years old at the time of testing. Most desirable candidates should possess a valid CDL with passenger bus and air brake endorsements. After filling out an application, the applicant must pass an in-person interview, background check and a successful pre-employment drug screen. Next MTA bus operator must attend a 10-week training program, consisting of both classroom and behind the wheel training. Upon successful completion of the training program, the MTA bus operator then reports to a designated terminal for further training and is then assigned a route. In addition to initial training, MTA bus operators must receive recertification training every 3 years.

7.2.3. Driver Handbook Bus Operator Rules and Regulations

The MTA provides all bus operators with a driver handbook that outlines policies, procedures and daily requirements. The driver handbook or “Bus Operator Rules and Regulations” manual consists of eight chapters. The handbook is required to be kept with drivers at all times while on duty. The driver handbook covers a variety of topics that include:

1. General Rules and Regulations
2. Attendance
3. Prohibited conduct and disciplinary action
4. Passenger Relations
5. Fares
6. Incidents and Accidents
7. Requirements with Americans with Disabilities Act (ADA)
8. General Rules Governing Bus Operation

7.3. Vehicle 2 Operator - MTA Bus Driver

The 34-year-old operator of Vehicle 2 held a Maryland Class B CDL with P endorsement. The MTA bus driver’s CDL was issued on September 2016 and had an expiration date of January

2022. At the time of the crash, the driver held a valid medical card with an issue date of May 2016 and an expiration date of May 2018. The MTA driver was hired on July 5, 2005 to be a Fare Inspector on the light rail system. In May 2006, she applied for a MTA bus operator position.⁷⁷

7.3.1. MTA Driver Drug Testing

According to the MTA the transit bus driver had three drug tests on file:

- 6/09/05 DOT pre-employment drug test
- 3/09/16 DOT random drug test
- 7/13/16 DOT random Alcohol test

The MRO reports for the DOT drug tests and random alcohol test were all negative.⁷⁸

7.3.2. MTA Bus Operator Training

According to MTA records the transit bus driver had received 47 training classes since her hire date in 2007. Some of the training courses included: post-accident training, bus simulator training, accident prevention training, remedial training, reasonable suspicion drug testing, ADA training, terrorist activity recognition training and other related safety courses.⁷⁹

7.3.3. MTA Bus Operator Hours of Service (HOS)

The MTA does not utilize a time clock or other verifiable time reporting system. The MTA requires that drivers report to the dispatch office and the on-duty dispatcher then manually records the driver's clock-in time on a time sheet. The MTA bus operator had been Off-Duty for the three days prior to the crash because of a non-related MTA bus accident that occurred on October 27, 2016. By MTA policy, the driver was required to wait for the DOT post-accident drug test results before being dispatched. The previous 7 days HOS for the MTA bus operator are detailed in **Table 8**.

Table 8. MTA Bus Operator Hours of Service

Date	Start of Shift	End of Shift	Total Hours
10/25/2016	3:46 am	2:51pm	8:06
10/26/2016	3:46 am	2:51 pm	8:06
10/27/2016	3:46 am	9:17 am (MTA accident)	5:31
10/28/2016	Off	N/A	0
10/29/2016	Off	N/A	0
10/30/2016	Off	N/A	0
10/31/2016	Post-Accident Test	N/A	0
11/1/2016	4:44 am	5:52	2:08

⁷⁷ See Motor Carrier Attachment 41- MTA Transit Bus Driver File.

⁷⁸ See Motor Carrier Attachment 42- MTA Transit Bus Driver Drug Testing Records.

⁷⁹ See Motor Carrier Attachment 43- MTA Transit Bus Driver Training Records.

7.4. MTA Bus Maintenance

Vehicle 2 involved in this crash was a 2005 New Flyer Transit Bus. The MTA Safety Officer provided the maintenance records for the transit bus and corresponding work orders. Drivers are required to conduct a pre-trip and post-trip inspection or “Vehicle Condition Report” that covers all the major parts and accessories of the bus. The form exceeds the minimum requirements of the DVIR prescribed under §396.11. The MTA conducts a comprehensive inspection and maintenance service at 6,000, 12,000, 30,000, and 60,000 mile intervals. These services meet or exceed the requirements of an annual or periodic inspection as required under §396.21. The carrier’s comprehensive system of repairs and services also met or exceeded the requirements of §396.3. For additional information concerning the mechanical operation of the transit bus see the *Vehicle Factors Group Chairman Factual Report*.

E. DOCKET MATERIAL

The following attachments and photographs are included in the docket for this investigation:

LIST OF ATTACHMENTS

Motor Carrier Attachment 1- MCS-150 for AAAfordable

Motor Carrier Attachment 2- AAAfordable Articles of Incorporation

Motor Carrier Attachment 3- AAAfordable Interview

Motor Carrier Attachment 4- AAAfordable School Bus Bill of Sale

Motor Carrier Attachment 5- BCPS Request for Proposal

Motor Carrier Attachment 6- AAAfordable Carrier Policy Records

Motor Carrier Attachment 7- Accident Driver Training Records

Motor Carrier Attachment 8- BCPS Request for Information Form

Motor Carrier Attachment 9- MRO Reports

Motor Carrier Attachment 10- AAAfordable MCMIS Carrier Profile (Excerpts)

Motor Carrier Attachment 11- CR for AAAfordable dated March 10, 2014

Motor Carrier Attachment 12- AAAfordable TSX Comprehensive Review

Motor Carrier Attachment 13- AAAfordable Post-Accident CR dated December 21, 2016

Motor Carrier Attachment 14- MCS-150 and MCMIS Reports for A&T Limousine and Renaissance Bus

Motor Carrier Attachment 15- MSDE Accident Report dated March 5, 1997

Motor Carrier Attachment 16- City Wide Interview

Motor Carrier Attachment 17- MSDE Accident Summary Report

Motor Carrier Attachment 18- MSDE Audit of BCPS

Motor Carrier Attachment 19- MSDE Driver Disqualification Report

Motor Carrier Attachment 20- AAAfordable BCPS Contract

Motor Carrier Attachment 21- BCPS Pupil Transportation SOP

Motor Carrier Attachment 22- Accident Driver In-Service Training

Motor Carrier Attachment 23- BCPS Crash File for Accident Driver

Motor Carrier Attachment 24- BCPS Accident Tracking File

Motor Carrier Attachment 25- AAAfordable Accident Driver DQ File

Motor Carrier Attachment 26- Loss Run Report for October 14, 2011 Accident

Motor Carrier Attachment 27- Reliable Transportation Accident Report dated July 19, 2016

Motor Carrier Attachment 28- BCPS Transportation Supervisor Interview

Motor Carrier Attachment 29- BCPS Transportation Staff Interviews

Motor Carrier Attachment 30- Howard County Public School Interview

Motor Carrier Attachment 31- First Transit DQ File

Motor Carrier Attachment 32- Mr. Poinsette Interview

Motor Carrier Attachment 33- C&T Transportation Interview

Motor Carrier Attachment 34- Y&L Transportation Interview

Motor Carrier Attachment 35- Reliable Transportation Documents

Motor Carrier Attachment 36- AAAfordable Accident Driver Time Records

Motor Carrier Attachment 37- EMS Report

Motor Carrier Attachment 38- AAAfordable Dispatcher Interview

Motor Carrier Attachment 39- AAAfordable Mechanic Interview

Motor Carrier Attachment 40- MTA System Safety Plan

Motor Carrier Attachment 41- MTA Transit Bus Driver File

Motor Carrier Attachment 42- MTA Transit Bus Driver Drug Testing Records

Motor Carrier Attachment 43- MTA Transit Bus Driver Training Records

Motor Carrier Attachment 44- 911 Transcript dated June 30, 2016

Motor Carrier Attachment 45- EMS Reports dated June 30, 2016

Motor Carrier Attachment 46- Reliable Transportation Bus Aide, Supervisor and Operations
Manager Interviews

Motor Carrier Attachment 47- Reliable Transportation Owner & Chief Legal Officer Interviews

LIST OF PHOTOGRAPHS

Motor Carrier Photos 1 and 2 - AAAfordable Principle Place of Business

Motor Carrier Photo 3 - Biometric Scan Time Clock

END OF REPORT

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