



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

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

A. CRASH INFORMATION

Location: Lanetown Rd and Buckingham Branch Railroad Grade Crossing (22470E)
near Crozet, Albemarle County, Virginia

Vehicle 1: 2017 Freightliner refuse truck

Operator 1: Time Disposal LLC. of Ruckersville, VA

Vehicle #2: AMTRAK "Congressional Special Amtrak Train 923", consisting of
2 locomotives, 10 cars

Operator #2: AMTRAK

Date: January 31, 2018

Time: Approximately 11:16 a.m. EST

NTSB #: **HWY18MH005**

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 investigation will focus on the Time Disposal LLC's (Time) oversight of the maintenance of the accident vehicle, qualification, training, drug testing, and medical qualification of the accident driver. The report will also examine the regulatory oversight of Time Disposal by the Federal Motor Carrier Safety Administration (FMCSA) as well as the State of Virginia and the Virginia State Police.

1. Motor Carrier

The Time Disposal, LLC of Ruckersville, VA is the motor carrier in this investigation. The carrier operated 26 straight trucks, three of the trucks are under 26,000 LBS. The carriers' principle place of business (PPOB) is listed in Ruckersville, VA The carrier also has a maintenance facility at the PPOB. This facility has fenced parking for the vehicles.

Time has been in business since 1984 and is family owned. Time provides trash pick-up services in Albemarle and Greene counties in central Virginia. Time provides residential as well as commercial services. The company has 21 drivers both Class B commercial driver's license (CDL) as well as non CDL drivers. There are three non-CDL drivers. The smaller refuse trucks under 26,000 LBS do not require a CDL to operate.

The pick-up routes are operated five days a week and the drivers operate a different route each of those days. The route that includes the crash location is operated every Wednesday. The accident driver has operated all the routes since his employment started with Time.

Time has equipped its fleet with a GPS system called "Shadow Tracker" on all its vehicles, including the accident vehicle. This system tracks every stop the vehicle makes during its route. The system installed in Time's vehicles were used by Time to ensure all the refuse pick-ups were made on the routes each day. Time used this system as a customer service tool, so they could confirm if a customer pick-up was made and the time the truck made the pick-up.

The system is not used to track Hours of Service by the drivers. The carrier uses a time card to track hours worked.

The carrier's operations are overseen by the owner and an operations manager that monitors the driver's daily trips. The operations manager's duties are to ensure the daily trips are completed and to deal with situations that occur such as missed pick-ups or changes to the daily operations such as trucks filling up prior to the end of the route due to excess trash, mechanical breakdowns, and other issues in the daily operations.

The owner does the hiring and road tests of the drivers as part of the hiring process. The owner stated that the company had no written policies or procedures for hiring /firing, training requirements, hours of service policies, or dispatch procedures. The owner stated he would review an application and if he thought the applicant would be a good fit he would have the applicant take a pre-employment drug test. If the drug test was negative the owner would give the applicant a road-test. If this was satisfactory the owner would offer the applicant a job.

The owner stated that he notified drivers verbally of various company procedures and requirements. Time did administer an OSHA Tag-Out/ Lock-Out training to the accident driver on May 23, 2016.¹

The accident driver also signed a non-disclosure agreement with Time on August 8, 2016. This agreement covers any technical, business, salary, or any proprietary information acquired during the accident driver's employment.

The acknowledgement of Time's drug testing policy was included in the application for employment the driver signed on October 10, 2010.²

The owner stated that he did not have a formal safety program but would hold safety meetings on an irregular basis to discuss issues that would arise in the pick-up of the refuse during the daily routes. The owner would also take the crew to breakfast or lunch on occasion as a reward for the efforts the employees made doing their jobs. The owner also stated that he did not have any recurring safety training.

1.1. The Accident Driver

The accident driver is a 30-year-old male. The accident driver held a class B Virginia CDL with no endorsements or restrictions. The CDL was issued on April 1, 2013 and expires in March of 2020. A Virginia DMV Record as well as a commercial driver's license information system (CDLIS) Report were obtained and these indicated a violation March 20, 2010 for operating vehicle without the proper endorsement.³ It also indicated a non-cmv accident on December 29, 2016. The driver had a valid Medical Certificate that was issued on 09/2017 and expires on 09/2019. This examination was performed by a medical examiner registered in the National

¹ OSHA Tagout/Lockout training for procedures to prevent unexpected hazardous energization of equipment or machinery while performing maintenance or service. See Title 29 CFR part 1910.147.

² See Motor Carrier Attachment Accident Drivers Application for Employment.

³ See Motor Carrier Attachment Accident Drivers CDLIS Report

Medical Examiners Registry.⁴ Company records indicated that the accident driver had a non-dot reportable accident on December 30, 2011 that resulted in vehicle damage to truck #3. The driver also had another non-dot reportable accident in truck #3 on October 10, 2012 backing into a parked vehicle. Company records indicated that the back-up camera was not operating at the time of the accident. The accident driver had been employed since 2010.

1.2 Driver Qualification

Time maintained a driver personnel file on the driver. This file contained a copy of the driver's CDL, his application for employment, all the medical certificates completed during his time of employment, the drivers annual DMV print outs. All the drug testing records were maintained in this file as well. Time was required to maintain a qualification file that follows FMCSA requirements for driver qualification files.⁵

1.3 Drug and Alcohol Testing

Title 49 CFR § 40 and 49 CFR § 382 describe the controlled substances, alcohol use and testing requirements. for CDL drivers and companies. Under this § 382, carriers who employ drivers who operate CDL required commercial motor vehicles (CMVs) are subject to six testing procedures. These tests include: Pre-employment drug testing (§382.301); Random drug and alcohol testing (§382.305); Post-accident drug and alcohol testing (§382.303); and Reasonable suspicion testing (§382.307). Additional requirements are also outlined in Part 40 of the FMCSRs which include Subpart B. Employer responsibilities, and Subpart O-Return to duty. These additional testing requirements include: Return-to- Duty testing (§382.309) and Follow-up testing (§382.311).

The accident driver was subject to the requirements of 49 CFR § 382. The Accident Driver had pre-employment test in 2010 and had 6 random tests during his employment. The last test was in 2016. The pre- employment as well as the random tests all were negative. All these tests were employer mandated non-dot tests. The drug testing program in place at the carrier did not meet the requirements of 49 CFR § 382 or 49 CFR § 40.

Post-accident drug and alcohol testing found in 49 CFR § 382.303 require a carrier to submit the accident driver for drug and alcohol screening following a crash that meets the following criteria:

- Human Fatality.
- Bodily injury with immediate medical treatment away from the scene, if a citation is issued to the CMV driver.

⁴ The National Medical Examiners Registry is a database operated by the Federal Motor Carrier Safety Administration to qualify and license medical providers in administrating commercial drivers' physical examinations.

⁵ Virginia has adopted the Federal Motor Carrier Safety Regulations in 49 CFR Parts 390 to 399 in the Virginia Administrative Code (19VAC30-20-80).

- Disabling damage to any motor vehicle requiring tow away, if a citation is issued to the CMV driver.

The carrier was advised of the post-accident testing requirement on the morning of February 1, 2018 by the safety investigator from the Virginia FMCSA office. The carrier tried to arrange to have the accident driver tested at the hospital but was unable to get the drug test done prior to the 32-hour time limit expiring.

The Investigating Officer for Albemarle County PD had obtained a search warrant to obtain 2 vials of blood from the accident driver which were obtained on January 31, 2018. These vials were sent to the Virginia Department of Forensic Science for testing. For further information on the post-accident testing see the Human Performance Group Chairmen report in the docket for this investigation.

The owner stated that he was not aware of the federal requirements but did have a drug testing program in his company. The owner stated that he does a random test once a year on all his drivers and he has a portable breathalyzer that he uses on the drivers as well. The carrier has since adopted a drug testing program that follows the FMCSA drug testing regulations.⁶

1.3.1 Firstcheckfamily.com Home Drug Testing

The carrier owner stated that he uses a urine test which he purchases over-the-counter at a pharmacy. The test consists of a cup that is provided with a lid containing a reagent. This reagent checks for levels of controlled substances in the urine and will provide a reading on the lid for the specific drugs present, if any. If a positive is detected, then the container can be sent in to the manufacturer of the test where a positive test is verified.

1.3.1.1 First Check Testing Standards

First Check tests for 12 drugs, seven illicit and five prescription the drugs are listed as follows:

Seven Illicit:

- Marijuana (THC)
- Cocaine (COC)
- Opiates (heroin) (OPI)
- Methamphetamine (MET)
- Ecstasy (MDMA)
- Amphetamines (AMP)
- Phencyclidine (PCP)

Five Prescription

- Tricyclic Antidepressants (TCA)
- Barbiturates (BAR)

⁶ See Section two for further information on US DOT drug testing.

- Benzodiazepines (BZO)
- Methadone (MTD)
- Oxycodone (OXY)

The cut-off levels and approximate detection time grid is listed below.⁷

Marijuana (THC)	50 ng/ml	2 hours	Up to 40+ days
Cocaine (COC)	300 ng/ml	1-4 hours	2-4 days
Methamphetamine (MET)	1000 ng/ml	2-7 hours	2-4 days
Amphetamines (AMP)	1000 ng/ml	2-7 hours	2-4 days
Ecstasy (MOMA)	500 ng/ml	2-7 hours	2-4 days
Opiates (heroin) (OPI)	2000 ng/ml	2 hours	2-3 days
Phencyclidine (PCP)	25 ng/ml	4-6 hours	7-14 days
Benzodiazepines (BZO)	300 ng/ml	2-7 hours	1-4 days
Methadone (MTD)	300 ng/ml	3-8 hours	1-3 days
Barbiturates (BAR)	300 ng/ml	2-4 hours	1-3-weeks
Tricyclic Antidepressants (TCA)	1000 ng/ml	8-12 hours	2-7 days
Oxycodone (OXY)	100 ng/ml	1-3 hours	1-2 days

This drug testing protocol does not have some of the requirements that are contained in the protocol in 49 CFR Part 40 and CFR Part 382. An example is the test cup does not have any method of detecting the temperature of the sample given. Another is there is no chain of custody requirement. The manufacturer of the test, Alere, Inc. (888)788-5716 was contacted and a customer service representative provided additional details regarding this test.⁸

1.3.2 US DOT Drug Testing Standards

The U.S. Department of Transportation (USDOT) regulates drug testing for motor carriers and other modes of transportation. These regulations are found in 49 CFR part 40 and part 382. 49 CFR 49 §40.87 outline the testing cut off levels for a USDOT drug test as follows:

Initial Test Analyte	Initial Test Cutoff ¹	Confirmatory Test Analyte	Confirmatory Test Cutoff Concentration
	50 ng/mL ³	THCA	15 ng/mL

⁷ Firstcheckfamily.Com Home Drug Testing.

⁸ See Motor Carrier Attachment Information on Firstcheckfamily.com Home Drug Testing.

Marijuana Metabolites (THCA) ²			
Cocaine metabolite (Benzoyllecgonine)	150 ng/mL ³	Benzoyllecgonine	100 ng/mL
Codeine/ Morphine	2000 ng/mL ³	Codeine/ Morphine	2000 ng/mL 2000 ng/mL
Hydrocodone/ Hydromorphone	300 ng/mL ³	Hydrocodone Hydromorphone	100 ng/mL 100 ng/mL
Oxycodone/ Oxymorphone	100 ng/mL ³	Oxycodone Oxymorphone	100 ng/mL 100 ng/mL
6-Acetylmorphine	10 ng/mL ³	6-Acetylmorphine	10 ng/mL
Phencyclidine	25 ng/mL ³	Phencyclidine	25 ng/mL

When the tests are compared, the USDOT tests generally have a lower cut-off point than the Firstcheckfamily test the carrier was using. For additional information on the driver's drug testing see the Human Performance Group Chairman report in the docket for this investigation.

1.4 Accident Driver's Hours of Service

The carrier is required to follow the hours of service requirements found in Title 49 CFR § 395.5 as adopted by the State of Virginia.⁹ Copies of the accident driver's time cards were obtained for the month of January. The documents indicated that the driver worked 5 days per week. The driver operated the same vehicle most days and had the same helpers each day.¹⁰

1.4.1 Accident Drivers 70 Hours prior to the Crash

Date	Times worked	Employer	Total Hours
January 25, 2018	06:00 a.m.- 3:15 p.m. EST	Time Disposal	9.25 hours
January 26, 2018	06:00 a.m.- 3:30 p.m. EST	Time Disposal	9.50 hours
January 27, 2018	Off Duty	Time Disposal	None
January 28, 2018	Off Duty	Time Disposal	None
January 29, 2018	6:00 a.m.- 1:15 p.m. EST	Time Disposal	7.25 hours

⁹ Virginia Administrative Code (19VAC 30-20-80)

¹⁰ See Motor Carrier Attachment Accident Driver's Time Card

January 30, 2018	6:00 a.m.- 2:30 p.m. EST	Time Disposal	8.50 hours
January 31, 2018	6:00 a.m.-11:16 a.m. EST	Time Disposal	Crash is at 11:16 a.m.

1.5 The Accident Trip

The driver started his trip at 6:00 A.M. EST to operate route 12-3 DANA. The trip was progressing as routed. This trip was operated every Wednesday by the accident driver. The trips are not on a time schedule. They are set to have a start point pick-up and an end of trip pick-up. This would only change if the “Hopper” on the truck filled up prior to the last pick-up being made.

The last stop the truck made was at the Crozet Volunteer Fire Department. This was at 11:13 according to the GPS tracking on the 2017 refuse truck. This was also captured on a security video at the Fire Department. The GPS recording stops at 11:16.¹¹

1.6 Vehicle Maintenance

Time performs most of the maintenance at the shop that is attached to the carrier’s offices and yard in Ruckersville, VA. This is a three-bay enclosed shop. The carrier employs 3 full time mechanics and has a part time mechanics helper.

The accident vehicle was a 2017 Freightliner with a refuse body installed by McNeilus Truck & Manufacturing. The Virginia Vehicle Registration indicates the vehicle had a GVWR of 54999 and an empty weight of 15597.

Registration for this vehicle was issued on October 3, 2017. The registration indicated the carrier is in exempt operation. The carrier provided the vehicle maintenance record which indicated the truck was delivered on September 2, 2017 with 1153 miles. The record indicated the truck had been taken to a Freightliner dealer on two occasions for warranty repairs. The repairs were for a transmission fluid leak and rear main seal gasket and to replace the EMC unit for a “engine brake problem” The vehicle had a routine service on January 8, 2018.¹²

The carrier provided driver vehicle inspection reports (DVIRS) for the accident vehicle for the month of January 2018. These reports are required by the State of Virginia.¹³ The seven days prior to the crash the truck was operated by the accident driver. The DVIR’s do not indicate any mechanical problems with the truck.¹⁴ The State of Virginia does require an annual vehicle inspection performed by a state inspection facility. Truck number 12 had a valid inspection sticker that expired in October of 2018.

The motor carrier is responsible for the maintenance of its vehicles. The carrier is required to follow maintenance requirements as found in the Virginia Motor Carrier Safety Regulations.

¹¹ See Motor Carrier Attachment GPS Spread Sheet Accident Trip.

¹² See Motor Carrier Attachment Time Truck Number 12-2018 Freightliner Records.

¹³ See footnotes 5 and 9.

¹⁴ See Motor Carrier Attachment DVIR’s January11 to January30 by Accident Driver.

Additional information on the accident vehicle can be found in the Vehicle Factors Group Chairman's Report located in the docket for this investigation.

2. Federal Oversight of the Motor Carrier

The FMCSA is the agency that has oversight responsibly for commercial motor carriers. The agency does so with regulations and interpretations in Title 49 CFR Parts 300-399.

FMCSA has oversight of the requirement that the intrastate drivers of commercial motor vehicles (CVM's) have a (CDL) The motor carrier was required to ensure the drivers were properly licensed.

FMCSA also has oversight of drug testing as outlined in Title 49 CFR Parts 40 and 382. The drug testing requirement applies to all CDL holders whether they operate in inter or intra state commerce. At the time of the crash, the carrier had a drug testing program. The carrier was using a company called Fristcheckfamily.Com. This program did not meet the requirements of Title 49 CFR Parts 40 and 382. Because of the crash the FMCSA started a focused review of the motor carrier.

The carrier does not have a US DOT Number as Virginia does not require Exempt Intra-State carriers to have USDOT numbers. The FMCSA assigned the carrier a USDOT Number 3103362 to track the compliance review.¹⁵

Because of the compliance review, FMCSA issued Time Disposal LLC an unrated review as of February 2, 2018. FMCSA also issued the carrier a Notice of Claim (NOC) for one violation of the CFR's. The violation was for Title 49 CFR Part §382.115(a) – “Failing to implement an alcohol and/or controlled substances testing program on the date the employer begins commercial motor vehicle operations.” This is an Acute Violation.

The NOC resulted in \$7,660.00 in civil penalties. The carrier signed a settlement agreement with FMCSA on March 13, 2018 to settle the NOC.

The case is now closed as far as FMCSA is concerned. Prior to this investigation and compliance review FMCSA had never had contact with the carrier.

3. State of Virginia Oversight of the Motor Carrier

The State of Virginia does not regulate trash pick-up or hauling as some states and municipalities do throughout the country. As a result, there is not any economic oversight or licensing of the trash industry in Virginia. The carrier in this crash is an intrastate hauler of trash, garbage and other refuse and is exempt from State of Virginia requirement to obtain state operating authority.¹⁶ The carrier is subject to Virginia motor carrier safety regulations as found 19VAC 30-20-80.

¹⁵ See Motor Carrier Attachment Time Disposal LLC MCS-150.

¹⁶ See Code of Virginia §§ 46.2-2121.1

3.1 Roadside Inspections

According to the roadside inspections obtained from Virginia DMV the carrier had 8 driver and vehicle roadside inspections from March 17, 2015 to November 28, 2017. The driver out-of-service (OOS) rate was zero (0) percent and the vehicle OOS rate was (20) percent. This is in comparison to the national OOS rate of 5.51 percent for driver and 20.27 percent for vehicle.

- Virginia 03/17/2015 Truck Number 10, 2 violations none were OOS.
- Virginia 05/06/2015 Truck Number 24, Clean Inspection no violations.
- Virginia 01/05/2016 Truck Number 23, 4 violations, 1 OOS Brakes out of adjustment.
- Virginia 11/16/2016 Truck Number 12, (not the accident vehicle) 4 violations none were OOS.
- Virginia 06/09/2017 Truck Number 2, 1 violation OOS Flat Tire.
- Virginia 06/09/2017 Truck Number 23, 2 violations none were OOS.
- Virginia 07/19/2017 Truck Number 36, Clean Inspection no violations. The accident driver was operating the truck for this inspection.
- Virginia 11/28/2017 Truck Number (not listed) 3 violations none were OOS.

These inspections were performed by the Virginia State Police Motor Carrier Unit.

E. DOCKET MATERIAL

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

LIST OF ATTACHMENTS

Motor Carrier Attachment - Accident Drivers Application for Employment.

Motor Carrier Attachment- Accident Drivers CDLIS Report.

Motor Carrier Attachment - Information on Firstcheckfamily.com Home Drug Testing.

Motor Carrier Attachment - Accident Driver's Time Card.

Motor Carrier Attachment - GPS Spread Sheet of the Accident Trip.

Motor Carrier Attachment - Time Truck Number 12-2018 Freightliner Records.

Motor Carrier Attachment - DVIR's January 11 to January 30 by Accident Driver.

Motor Carrier Attachment - Time Disposal LLC MCS-150.

END OF REPORT

Michael LaPonte

Motor Carrier Investigator