

# National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



HWY24FH004

## **MEDICAL**

Specialist's Factual Report

July 30, 2024

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## **A ACCIDENT**

Location: Millstone, Calhoun County, West Virginia  
Date: March 4, 2024  
Time: 5:50 PM Eastern Standard Time

## **B MEDICAL SPECIALIST**

Specialist JE Tuttle MD MHA FACS  
National Transportation Safety Board  
Washington, DC

## **C DETAILS OF THE INVESTIGATION**

### **1.0 Purpose**

This investigation was performed to evaluate the bus driver for potentially impairing medical conditions and substances.

### **2.0 Methods**

The bus driver's United States Department of Transportation (DOT) Federal Motor Carrier Safety Administration (FMCSA) commercial motor vehicle (CMV) driver medical certificate and most recent Medical Examination Report (MER) Form, the State of West Virginia's Uniform Crash Report Form and West Virginia State Police (WVSP) Forensic Laboratory alcohol testing results and toxicology report were reviewed. Selected investigator reports and relevant regulation and medical literature were also reviewed.

## **D FACTUAL INFORMATION**

### **1.0 Commercial Driver Medical Certification**

The 54-year-old male bus driver's most recent CMV driver medical examination before the crash was June 14, 2023. At that time, the driver reported a medical history including high blood pressure. He reported taking a common prescription oral medication used to treat high blood pressure that is not generally considered impairing. He was issued a one-year medical certificate.

## **2.0 Toxicology**

### **2.1 Pre-Employment and Random DOT testing**

The bus driver was subject to pre-employment DOT drug and alcohol testing which was negative. The bus driver had been enrolled in the school district's DOT random drug testing program and had prior negative breath alcohol and urine drug tests on multiple occasions as far back as 2017.

### **2.2 Post-event DOT Testing**

Post-accident DOT drug and alcohol testing of the bus driver was not performed.

### **2.3 West Virginia State Police Testing**

According to the State of West Virginia Uniform Crash report, a preliminary breath test was performed on the bus driver at the site of the crash by the West Virginia State Police Officer at 6:40 PM and resulted in a blood alcohol concentration (BAC) of 0.161 g/dL. The bus driver was taken back to the WVSP detachment and on secondary breath testing at 7:28 pm, his BAC was 0.127 g/dL.<sup>1,2</sup> A blood specimen was obtained from the bus driver at 10:20 PM on the day of the event and was sent to the WVSP Toxicology Section of the Forensic Laboratory for toxicological drug testing. No tested-for substances were detected.<sup>3</sup>

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<sup>1</sup> According to the West Virginia State Police Forensic Sciences Laboratory: Breath alcohol unit, both the preliminary breath test device and the secondary chemical breath alcohol testing instruments meet the National Highway Traffic Safety Administration (NHTSA) performance criteria set forth in their model specifications for breath test devices. They also meet the requirements set forth in Chapter 17C of the West Virginia Code and Title 64 Legislative Rule Bureau for Public Health, Series 10, Methods, and Standards for Chemical Tests for Intoxication (64CSR10).

Baker, S. Breath alcohol unit. West Virginia State Police Forensic Laboratory Newsletter.

<https://www.wvsp.gov/departments/laboratory/Documents/Newsletters/The%20Forensic%20Review%20Volume%201%20Issue%201.pdf>. June 2022. Accessed June 13, 2024.

<sup>2</sup> An alcohol breath test measures BAC, which reflects the percentage of alcohol in a person's blood. Following alcohol consumption, the body absorbs alcohol through the gastrointestinal tract into the bloodstream. As blood passes through the lungs, some alcohol evaporates and moves into the lungs. The concentration of alcohol in the lungs relates to the concentration present in the blood. A. Carter. What to know about the breathalyzer test. <https://www.medicalnewstoday.com/articles/breathalyzer-test>. Updated February 15, 2023. Accessed June 25, 2024.

<sup>3</sup> West Virginia State Police Toxicology Section of the Forensic Laboratory tests for additional substances in blood specimens if the officer suspects the driving under the influence suspect is under the influence of additional substances. The toxicological drug panel and detection limits can be found at the WVSP Toxicology Section of the Forensic Laboratory website. Tested-for substances did not include alcohol.

<https://www.wvsp.gov/departments/laboratory/Documents/AGILENT%20WVSP%20TOX%20BLOOD%20DRUG%20PANEL.pdf>. Updated January 18, 2023. Accessed June 24, 2024.

## 2.4 Description of Detected Substance

Alcohol is the intoxicating substance in beer, wine, and liquor, and, if consumed, can reduce brain function, impair thinking, reasoning, and psychomotor performance.<sup>4</sup> Alcohol levels of 0.05 g/dL may degrade judgment, psychomotor functioning, and alertness. At blood Alcohol concentrations above 0.10 g/dL, there may be prolonged reaction time, altered perception of the environment, slowed thinking, and mood and behavioral changes.<sup>5</sup> As BAC levels increase, the adverse effects on driving performance worsen. At a BAC of 0.10 g/dL there is reduced ability to maintain lane position and brake appropriately. A BAC of 0.15 g/dL is associated with substantial impairment in vehicle control, attention to driving and in auditory and visual processing of information.<sup>6</sup> West Virginia State law states that it is illegal to drive with a blood alcohol level above 0.04 g/dL for drivers with a commercial driver's license (CDL).<sup>7,8</sup>

## E SUMMARY OF MEDICAL FACTS

The 54-year-old male bus driver's most recent CMV driver medical examination before the crash was June 14, 2023. At that time, the driver reported a medical history including high blood pressure. He reported taking a common prescription oral medication used to treat high blood pressure that is not generally considered impairing. He was issued a one-year medical certificate due to his high blood pressure.

The bus driver was subject to pre-employment DOT drug and alcohol testing which was negative. The bus driver had been enrolled in the school district's DOT random drug testing program and had prior negative breath alcohol and urine drug tests on multiple occasions as far back as 2017.

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<sup>4</sup> United States Department of Transportation. NHTSA: How alcohol effects driving ability. [Drunk Driving | Statistics and Resources | NHTSA](#): Drunk Driving. <https://www.nhtsa.gov/risky-driving/drunk-driving>. Accessed June 13, 2024.

<sup>5</sup> Centers for Disease Control and Prevention. Blood Alcohol Concentration (BAC). <https://www.cdc.gov/motorvehiclesafety/pdf/bac-a.pdf> February 29, 2024.

<sup>6</sup> National Highway Safety Administration, Department of Transportation. Drunk driving: Driving after Drinking. <https://www.nhtsa.gov/risky-driving/drunk-driving>. Accessed July 15, 2024.

<sup>7</sup> West Virginia Code §17E-1-14. Uniform commercial driver's license act. <https://code.wvlegislature.gov/17E-1-14§17C-5-2>. Accessed July 30, 2024.

<sup>8</sup> According to the West Virginia Department of Motor Vehicles, school buses are considered to be Commercial Motor Vehicles and require a CDL with school (S) endorsements. <https://www.dmv.org/wv-west-virginia/cdl-education.php>.

Post-accident DOT drug and alcohol testing of the bus driver was not performed.

According to the State of West Virginia Uniform Crash report, a preliminary breath test was performed on the bus driver at the site of the crash by the West Virginia State Police Officer at 6:40 PM and resulted in a blood alcohol concentration (BAC) of 0.161 g/dL. The bus driver was taken back to the WVSP detachment and on secondary breath testing at 7:28 PM, his BAC was 0.127 g/dL. A blood specimen was obtained from the bus driver at 10:20 PM on the day of the event and was sent to the WVSP Toxicology Section of the Forensic Laboratory for toxicological testing. No tested-for substances were detected; tested-for substances did not include alcohol.

Submitted by:

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Medical Officer