National Transportation Safety Board

Office of Research and Engineering Washington, DC 20594



HWY23MH004

MEDICAL

Specialist's Factual Report

May 16, 2023

MEDICAL SPECIALIST'S FACTUAL REPORT

A. ACCIDENT

Location: Williamsburg, Virginia Date: December 16, 2022

Time: 01:36 Local

Vehicles: 2000 International medium-size bus

2022 Freightliner Cascadia truck-tractor in combination with a Great

Dane van-style semi-trailer, operated by Triton Logistics, Inc.

B. MEDICAL SPECIALIST

Specialist Michelle Watters, MD, PhD, MPH

National Transportation Safety Board, RE-1

Washington, DC

C. DETAILS OF THE INVESTIGATION

Purpose

This investigation was performed to evaluate the bus driver and truck driver for medical conditions, the use of medications/illicit drugs, and the presence of toxins.

Methods

The following records were reviewed: the bus driver's and truck driver's Virginia State Police toxicology reports¹ and personal medical records.

D. FACTUAL INFORMATION

1.0 Bus Driver

The male bus driver of the 2000 International medium-size bus was 23 years old at the time of the accident.

1.1 Toxicology

According to the report from the Commonwealth of Virginia Department of Forensic Sciences, Eastern Laboratory, Norfolk, Virginia, no ethanol or other tested-

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¹ As part of the VSP post-accident toxicology testing, both the bus driver and truck driver had their blood screened for ethanol, methanol, acetone, isopropanol, cocaine/benzoylecgonine, opiates, oxycodone/oxymorphone, methamphetamine/MDMA, phencyclidine, fentanyl, methadone, barbiturates, benzodiazepines, carisoprodol/meprobamate, zolpidem, buprenorphine/norbuprenorphine, cannabinoids, diphenhydramine/cyclobenzaprine, dextromethorphan, tramadol, tricyclic antidepressants, and amphetamine/MDA. The truck drivers' blood specimen was also screened for alkaline-extractable drugs.

for drug or drug classes were detected in the bus driver's blood specimen on the toxicology testing performed at the request of the Virginia State Police.

1.2 Personal Medical Records

Post-accident medical records were obtained for the bus driver. He was taken by ambulance to the hospital where he was diagnosed with a left hip contusion. He reported no current medical conditions or medications. He was discharged home after three hours.

2.0 Truck Driver

The male truck driver of the 2022 Freightliner truck-tractor combination vehicle was 61 years old at the time of the accident.

2.1 Toxicology

According to the report from the Commonwealth of Virginia Department of Forensic Sciences, Eastern Laboratory, Norfolk, Virginia, no ethanol or other tested-for drug or drug classes were detected in the truck driver's blood specimen on the toxicology testing performed on behalf of the Virginia State Police. Toxicology testing performed by the laboratory on pills found in the truck driver's cab reported that two plastic bags contained tablets of metformin² and one plastic bag contained a variety of capsules that were found to contain no controlled substances.

2.2 Personal Medical Records

Post-accident medical records were obtained for the truck driver. He was taken by ambulance to the hospital where he was diagnosed with a left forearm fracture. He denied having any chronic medical conditions and the use of metformin or other medications. He was discharged home after two days.

The truck driver's most recent DOT physical qualification examination was dated September 28, 2022. He reported no health conditions or medication use. The certified medical examiner documented the truck driver's corrected visual acuity as 20/15 for both eyes with 90-degree field of vision for each eye. He had normal hearing and his physical examination had normal findings. The truck driver was 71 inches tall and weighed 222 pounds. His urine dip was negative for protein, blood, and sugar. The examiner reported the truck driver met the requirements established by 49 CFR 391.41 and was qualified for a two-year

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² Metformin is a widely used drug to treat type 2 diabetes because of its efficacy, safety profile, and cost. Metformin has also been demonstrated to provide benefits in various other diseases including some cancers, liver disease, cardiovascular disease, and renal disease. (Ziquan L and Y Guo. 2020. Metformin and its benefits for various diseases. *Frontiers in Endocrinology* 11: Article 191.)

certificate with a requirement to wear corrective lenses. The truck driver's medical history and his physical examination findings at his DOT physical qualification examination on June 29, 2020 were comparable.

E. SUMMARY OF MEDICAL FACTS

The 23-year-old male bus driver reported no current medical conditions or medications. No ethanol or other tested-for drug or drug classes were detected in his blood specimens. The bus driver was diagnosed with a left hip contusion from the accident and was discharged home from the hospital after three hours.

The 61-year-old male truck driver reported no current medical conditions or medications. No ethanol or other tested-for drug or drug classes were detected in his blood specimens. The truck driver was diagnosed with a left forearm fracture from the accident and was discharged home from the hospital after two days. His most recent DOT physical qualification examination was on September 28, 2022. Except for his vision, his examination was normal, and the truck driver was found qualified for a two-year certificate with a requirement to wear corrective lenses.

Submitted by:

Michelle Watters, MD, PhD, MPH Medical Officer, RE-1

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