National Transportation Safety Board

Office of Highway Safety Washington, DC 20594



HWY24MH005

HUMAN PERFORMANCE

Group Chair's Factual Report

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A. CRASH

Location: Rushville, Schuyler County, Illinois

Date: March 11, 2024 Time: 11:29 am (CDT)

B. HUMAN PERFORMANCE GROUP

Group Chair Rafael Marshall

NTSB

Washington, DC

C. CRASH SUMMARY

For a summary of the crash, refer to the *Crash Information and Summary Report*, which can be found in the NTSB docket for this investigation.

D. DETAILS OF THE INVESTIGATION

This crash involved a 2020 Micro Bird MB-II 25-passenger school bus (school bus) and a 2001 Mack CH613 truck-tractor in combination with a 2001 Vantage 39-foot end-dump semitrailer (truck). The crash-involved school bus was traveling through a right-hand curve. While traversing the curve, the crash-involved school bus crossed over the broken yellow centerline and entered the westbound traffic lane, where it subsequently collided head-on with the truck. The Human Performance factual report describes information gathered on both commercial drivers involved in the crash, and on the behavioral, medical, operational, toxicological, and environmental factors that may have contributed to the crash.

1.0 Bus Driver

1.1 Background and License History

The bus driver was a 57-year-old female with a Class B commercial driver's license (CDL) issued in August 2023 and set to expire in February 2027.¹ She held endorsements for passengers and school passengers. Her license also qualified her to operate motorcycles. She was restricted from operating Class A commercial passenger vehicles and commercial vehicles equipped with manual transmissions or airbrakes.

¹ See the following link for CDL classes: https://www.fmcsa.dot.gov/registration/commercial-drivers-license/drivers. Accessed December 16, 2024.

She was required to drive with corrective eye lenses.² According to the Commercial Driver's License Information System (CDLIS), the bus driver did not have any accidents or withdrawals.³ She was cited in August 2022 and subsequently convicted for speeding in Iowa in a noncommercial vehicle. She had a valid 1-year Illinois medical certificate, issued in February 2024.⁴ As discussed later in this report, the bus driver was on Social Security disability insurance. There was no record of her possessing a disability placard or permanent disabled plate.

1.2 Employment

According to her daughter, the bus driver learned about school bus driver positions from a niece in Macomb, Illinois, who drove a school bus. Her daughter stated that the bus driver was originally thinking of driving for the Macomb school district, but she decided to move her residence from Macomb to Rushville to be closer to her daughter's children. Records obtained from Schuyler-Industry Community Unit School District #5 indicated that the bus driver was hired on February 7, 2023. Timecards indicated that she was trained as a bus aide and radio operator throughout February and March. She began working as a bus aide and a radio operator in March 2023.

After completing required commercial driver training (see Section 1.3), she began working as a substitute bus driver in April 2023. A letter in the bus driver's file indicated that the Illinois Office of the Secretary of State approved her school bus driving privileges in April 2023, with an expiration date of April 14, 2025. The bus driver was officially hired as a full-time bus driver for the school district on May 24, 2023, at a school board meeting.

The school district was unable to produce the bus driver's employment application, which would have an account of the bus driver's employment history. When interviewed, her supervisor mentioned that the bus driver had worked at a daycare during the summer of 2023 prior to becoming a full-time bus driver with the school district. School district records indicated that the bus driver was on Social Security disability insurance. NTSB investigators requested a copy of her disability records from the Social Security Administration. These records included a history of the jobs the bus driver held from 2000 to 2016, when she applied for and obtained disability insurance. It also included a work activity report from 2023, in which the bus driver stated that she was let go from a job during the training phase because she missed three days of work due to a health issue (Table 1).⁵ No additional records were available from 2017-2022 and for 2024.

² According to her family, she wore contact lenses when driving. It could not be determined if the bus driver was wearing her contacts at the time of the crash due to the severe thermal injuries to her body.

³ Human Performance Attachment - Bus Driver CDLIS Records.

⁴ School bus drivers are required to have a medical examination annually. See 92 Illinois Administrative Code 1035.20.

⁵ Human Performance Attachment - Bus Driver Work History.

Table 1. Positions held by bus driver.

		Dates Worked	
Job Title	Type of Business	From	То
Trainee	Social Services	Jan-23	Jan-23
Production technician	Pork producer	Mar-15	Jan-16
Cook	Restaurant	Oct-14	Mar-15
Secretary	Fish market	Jul-13	Oct-13
Secretary	Cleaning service	Mar-13	Jun-13
Office assistant	Scrap yard	Feb-12	Mar-13
Cashier	Mini mart	Jan-11	Feb-12
Secretary	Call center	Oct-09	Mar-10
Secretary	Hospital	Apr-05	Feb-08
Secretary	Chamber of Commerce	Oct-01	Apr-05
Secretary	Veterinarian office	May-00	Dec-00

1.3 **Training**

On March 22, 2023, the driver completed the School Bus Driver Training Course that was provided by the Hanock/Fulton/Schuyler/McDonogh Regional Office of Education. Because the driver did not have a CDL at that time, the school district enrolled her in an entry-level driver training program (ELDT), which is federally required for all individuals obtaining a CDL after February 7, 2022.7 The bus driver passed the school bus driver certification training on March 21, 2023. She completed recertification training on October 12, 2023.

1.4 **Drug Testing**

According to school district records, the bus driver submitted to a preemployment drug test on March 7, 2023.8 The results were received on March 9, and the drug test was negative for amphetamines, cocaine, marijuana, opiates, and phencyclidine. This drug test was also recorded in her annual Illinois bus driver physical exam, dated March 31, 2023. The final drug test on the bus driver's records was on February 08, 2024, with results received on February 11. The paperwork indicated that it was a random drug test. The bus driver was again negative for amphetamines, cocaine, marijuana, opiates, and phencyclidine. The bus driver was due for her annual Illinois bus driver physical exam at that time, which required the driver to submit to a drug test. The physical exam documentation listed February 11 as the date the drug test result was received, suggesting that an additional drug test was not conducted for the physical examination, which was conducted February 15, 2024.

⁶ See Motor Carrier Factual Report in the public docket for this investigation.

⁷ See the Motor Carrier Factual report for more information on the ELDT program.

⁸ Human Performance Attachment - Bus Driver Drug Tests.

1.5 Duties

When interviewed, the school district superintendent stated that the bus driver operated a 2022, 65-passenger Thomas school bus (large school bus) in the early morning, picking up both school age and pre-kindergarten passengers. She would then use the smaller crash-involved school bus to pick up and drop off pre-kindergarten passengers during her midday route. In the afternoon, she would again use the large school bus to transport students home from school. She had a set route that changed only when a student left the school district or when a new student enrolled.

The school district did not record when each of its bus drivers arrived and departed work, therefore the NTSB estimated her duty hours based on the route sheets provided by the school district (Table 2), video surveillance times (discussed in detail later in this report), driver vehicle inspection reports (DVIR) for both buses (Table 3), and family and friend interviews. When the route sheet and video surveillance times were compared, the bus driver generally started her midday shift about a half-hour earlier than scheduled and completed her afternoon shift about one hour earlier than scheduled.

Table 2. Bus driver shift time estimates based on route sheets.

Ch:ft	Large school bus		School bus	
Shift	Start Time	End time	Start Time	End time
Early morning	6:00 a.m.	7:58 a.m.		
Midday			10:30 a.m.	11:35 a.m.
Afternoon	3:00 p.m.	6:07 p.m.		

Table 3. Bus driver estimated shift times based on surveillance video and DVIR reports.

CF:FF	Large school bus		School bus	
Shift	Start Time	End time	Start Time	End time
Early morning	6:00 a.m. 8:00 a.m.			
Midday			9:55 a.m.	Not available
Afternoon	2:50 p.m.	4:50 p.m.		

According to an interview with the bus driver's family and separate interview with a friend, the bus driver would arrive at work between 6:00 a.m. and 6:30 a.m. and transport school passengers until 8:00 a.m. and have downtime until 9:30 a.m. She would then pick up and drop off pre-kindergarten passengers in the school bus until 12:00 p.m. At 2:30 p.m., she would start her afternoon route and finish work by 5:00 p.m.

1.6 72-Hour History

1.6.1 Bus Driver Activities Based on Interviews

The bus driver's family member and a friend were interviewed separately on March 13, 2024, two days after the crash. 9,10 According to her daughter, the bus driver worked on Friday, March 8. The bus driver usually awoke between 5:00 a.m. and 5:30 a.m. and left her home for work about 6:00 a.m. After finishing her morning route at 8:00 a.m., the bus driver would usually go home to let her dog out and relax. She also used that time to run errands. After she finished her midday route, she would usually stay in the vicinity of Rushville. Her daughter stated that she believed the bus driver was responsible for ensuring that passengers were secured in the bus. She was usually the only adult on the bus – no bus aide was assigned to her. After the bus driver finished work on Friday, she went home to get her dog and go to her friend's house to eat with his family. She stayed with him overnight. According to her friend, they went to bed around 11:00 p.m.

On Saturday, her daughter called the bus driver at 7:05 a.m. and the bus driver answered. She arrived at her daughter's house at 8:00 a.m. and accompanied her to her son's baseball tryouts. They finished around 11:00 a.m. The bus driver then left with her dog to go to her friend's house, where they tended to his horses. She attended a saddle club winter party at 2:00 p.m., which was held at a bar; however, the daughter stated that she knew the bus driver did not drink at the party because the daughter had been bartending at the party. The bus driver and her friend left the party between 6:30 p.m. and 7:00 p.m. to see a concert. Her friend stated that they were back home and in bed between 11:00 p.m. and 11:30 p.m.

On Sunday, the driver and her friend were awake by 7:00 a.m. to tend to the horses. Her daughter called the driver around 9:00 a.m. and received a call back at 10:03 a.m. The bus driver stated to her daughter that they were off to pick up a horse trailer. The driver and her friend attended a fish-fry early in the afternoon and were back at his house by 8:00 p.m. Her friend stated that they were exhausted and went to bed around 9:30 p.m. Phone records indicated that the bus driver sent her last text message of the day at 10:23 p.m.

According to her friend, on the day of the crash, the bus driver was awake by 4:30 a.m. and had left his house by 4:45 a.m. Her friend also related to the NTSB that an acquaintance of his saw the bus driver's personal vehicle at a chiropractor's office the morning of the crash. The NTSB contacted the chiropractor's office and obtained records confirming the visit, which is described in more detail later in this report. Prior to beginning the late morning route that would result in the crash, the bus driver spoke

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⁹ Human Performance Attachment - Interview with Bus Driver's Family.

¹⁰ Human Performance Attachment - Interview with Bus Driver's Friend.

on the phone with her daughter to tell her that she would be at her house after she finished her route.

Surveillance video recordings from buildings in the vicinity indicated that the crash occurred at 11:29 a.m. as the bus was rounding a right-hand curve on eastbound US-24, about 0.5 miles from US-67.

1.6.2 Bus Driver Activities from Video Recordings

The school bus was equipped with an REI video monitoring system that stored the recordings on a hard drive located on the bus. This hard drive was damaged in the crash and subsequent fire, making the recordings inaccessible.

The large bus assigned to the bus driver was also equipped with an REI video monitoring system that saved recordings from 4 cameras internal and external to the bus. The video monitoring systems began recording once the bus ignition was turned on. The school district provided the NTSB with 43 videos from the large school bus that covered dates from March 4 through March 11. Of these videos, 39 captured the bus driver during her morning and afternoon scheduled routes (Table 4).¹¹ The others were videos of the bus driver taking the large bus for maintenance. Each video provided by the school district was titled with the bulleted information below.

- System name and number (e.g., REI-009)
- Date (e.g., 20240311 for March 11, 2024)
- Time (e.g., 110550 for 11:05:50 a.m. UTC time)
- Length of video recording (e.g., 015000 for 1 hour and 50 minutes)
- Camera (e.g., CH04 identifies the camera #4)

Table 4. Video surveillance recordings from the large bus.

Date	Morning shift surveillance recordings		Afternoon shift surveillance recordings		Additional afternoon shift surveillance recordings	
	Start time	Stop time	Start time	Stop time	Start time	Stop time
4-Mar-24						
5-Mar-24			2:45 p.m.	4:47 p.m.		
6-Mar-24	6:01 a.m.	7:55 a.m.	2:49 p.m.	4:43 p.m.		
7-Mar-24	5:59 a.m.	7:55 a.m.	2:51 p.m.	2:56 p.m.	4:07 p.m.	4:46 p.m.
8-Mar-24	6:03 a.m.	7:55 a.m.	2:49 p.m.	4:10 p.m.	4:14 p.m.	4:43 p.m.
11-Mar-24	6:05 a.m.	7:55 a.m.				

Investigators reviewed the videos of the bus driver during her shifts on March 5 through March 11 and listed her activities as they pertained to distracted driving, her

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¹¹ Camera 3 did not record video for March 11, 2024.

health, and student activities. These activities are provided in an attachment.¹² Further information about her shifts on March 8 and March 11 are given below.

1.6.2.1 Bus Driver Activities on March 08, 2024

According to the title of the videos for her morning shift, it started at 12:03 a.m. Coordinated Universal Time (UTC), or 6:03 a.m. Central Standard Time (CST). Civil twilight occurred at 6:01 a.m. and ambient light is noticeable. Before she began her shift, the bus driver conducted a pre-trip inspection. She spoke briefly with someone before entering the bus again to complete her DVIR. Around 6:11 a.m., she buckled her seatbelt, closed the bus door, and backed out of the bus bay.

Around 6:26 a.m., prior to picking up any students, she manipulated the radio for about 30 seconds while driving. She did so again for about 20 seconds around 6:27 a.m. About 30 minutes into her shift, she made a left turn and stopped the bus for about 3 minutes and began to manipulate her phone and adjust the radio. She still used her phone as the bus slowly traveled forward but put it away as the bus picked up more speed. She reached her first stop around 6:33 a.m., but the student did not appear. She continued her route and picked up a total of 20 students. Once she reached school grounds and joined a queue of buses, she manipulated her phone as she inched towards the drop-off points. She dropped off the last student about 7:51 a.m. She then drove the bus to the bus bay and turned off the ignition at 7:55 a.m. Throughout this shift, the bus driver frequently adjusted her seatbelt so that it would rest on her upper left arm instead of her shoulder. She also frequently drank from her tumbler and refilled the tumbler using a plastic water bottle; in doing so, she would take both hands off the wheel as she uncapped the bottle. Throughout this shift, she rubbed her neck/shoulders twice briefly and once for about 30 seconds.

The videos of her afternoon shift began at 8:49 p.m. UTC, or 2:49 p.m. CST. By the time the video started, the bus driver was already backing the bus out of the bus bay. She drove the bus to a school and joined a queue of buses. She used her phone as she inched forward in the queue. Once at the pickup location, the bus driver secured a young student into a first-row seat harness behind the driver's seat. Another student buckled herself up in another first-row seat harness on the opposite side of the driver's seat. The bus driver helped another student load a musical instrument into the bus. Two students congregated around the bus driver prior to the bus departing school grounds. At about 3:07 p.m., the bus driver closed the bus door and began her route after telling a young student who was standing in the aisle to sit down. Early in the trip, there were at least five instances when a student got up and walked up the aisle to throw rubbish into a bin to the right of the bus driver while the bus was in motion. The bus driver did not say anything in response. Around 3:14 p.m., after dropping off a few students and with the bus still stopped, the bus driver stated to the remaining students "if my eyes are in this mirror (rearview mirror) watching you guys back there, what are

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¹² Human Performance Attachment - Bus Driver Large Bus Activity Summary.

they not on?" The students responded, "the road." She told them to stay in their seats and behave. About 3:15 p.m., a young student got up from her seat to throw trash in the front bin. The student stayed standing for about one minute to talk to another student and the bus driver. The student went to the back of the bus then returned around 3:17 p.m. to speak with the bus driver again. Another student got up to throw trash into the bin 2 minutes later.

About 3:20 p.m., the bus driver checked her rearview mirrors to see what the students were doing. She stated, "you're gonna get your coat soaking wet." About two minutes later, a young student approached the bus driver and spoke with her. The bus driver told the student to take something out of her mouth. The student who approached the bus driver headed back to the seating area and remained standing for most of the rest of her trip. While driving, the bus driver continued to speak with the student who had stuck something in her mouth and told her to give a chain back to a male student. While driving, the bus driver spoke to a student behind the driver's seat and asked him to get a package of hand wipes from behind her seat, showing him with two hands how big the package was (Figure 1 and Figure 2). About a minute later, the bus driver stopped to let two students off and reached for the package of hand wipes behind her seat to give to a student to clean his chain. After she resumed her route, she refilled her tumbler with liquid from a screw cap plastic water bottle twice in a 10minute span as she drove, taking both hands off the wheel when she did so. About 15 minutes later she touched her forehead/hairline 3 times in a 3-minute span. Prior to dropping off the last student, she stopped the bus at the side of the road and asked a student to come to the front of the bus. She talked to him for about 4 minutes about something he said to another student that could possibly result in him getting in-school suspension. She began driving again and dropped off the student about two minutes later. About one minute after she dropped off the student, she stopped at the side of an unpaved road and unbuckled her seatbelt. She reached for her phone from the bottom right side of her seat and looked at it. She then got up from her seat and headed down the rows of passenger seats, at which point the video ended around 4:10 p.m.

A separate set of videos began at 4:14 p.m., shortly after the last ones ended. It showed the driver as she checked her phone while still parked. About 3 minutes later, she got a call on her two-way radio asking if she was headed in today. She responded, "headed that way." She replaced the radio microphone and continued checking her phone. She began driving around 4:21 p.m. Around 4:31 p.m., she reached for the plastic water bottle, unscrewed it, and refilled her tumbler. It took over a minute for her to complete this process. Around 4:39 p.m., she reached down to the floor on her right side for about 30 seconds. During this time, the bus driver split her attention between the roadway and the item. She reached the bus bay around 4:42 p.m. and parked the bus.



Figure 1. The bus driver used two hands to gesture to a student as she drove.



Figure 2. Bus driver looked back at students as she drove.

1.6.2.2 Bus Driver Activities on March 11, 2024

The videos for her morning shift started at 11:05 a.m. Coordinated Universal Time (UTC), or 6:05 a.m. Central Daylight Time (CDT). The day before, the Central time zone transitioned from Central Standard Time (CST) to CDT, so the bus driver was effectively working one hour earlier than she did the previous week. She began her shift when it was dark outside, with sunrise occurring at 7:19 a.m.

The beginning of the video showed the bus driver as she completed her pretrip inspection and filled out her DVIR. She backed out of the bus bay around 6:12 a.m. Throughout this shift, the bus driver moved the shoulder strap of her seatbelt from her shoulder to her upper arm. She also took frequent drinks from her tumbler. She occasionally refilled the tumbler with liquid from a screw cap plastic water bottle as she drove, taking both hands off the wheel as she did so. About 25 minutes into her shift, she made a left turn and stopped the bus for about 8 minutes, at which time she took contents from a pill bottle in her purse and ingested them, set up a portable speaker on the left side of the bus, and played music on the speaker using her phone. She picked up her first student at 6:39 a.m. She picked up a total of 24 students during this shift. Around 6:41 a.m., the bus driver stopped the bus and manipulated her phone; while doing so, she got a call from her daughter and spoke with her for a little over a minute.

Around 6:52 a.m., the bus driver began rubbing her neck for several seconds while driving. She rubbed her neck and shoulders at least 5 more times during this shift. She also appeared to rub her forehead at least twice. About 7:32 a.m., after she had picked up 23 students, she had a 1-minute-long conversation with students behind her while driving regarding a found lunch box and a sweatshirt. She looked away from the roadway several times, and on two occasions, she held the sweatshirt up using both hands as she drove (Figure 3). At 7:37 a.m., the bus driver approached a 4-way stop and turned her torso and neck to look for traffic before proceeding forward. After dropping off her last student at school at 7:50 a.m., she returned to the bus bay at 7:54 a.m.



Figure 3. Bus driver held up a sweatshirt with both hands as she drove.

¹³ Two pill bottles were found in her purse after the crash. The Illinois State Police confirmed that the contents of one bottle was 220 mg caffeine pills. The other bottle was empty.

1.7 Health and Sleep History

According to her daughter, the bus driver did not sleep very well due to frequent headaches and other medical issues (See the *Medical Specialist Factual Report* for additional information on the bus driver's medical conditions). The migraines would occur throughout the day and would affect her sleep. Sometimes, she would be up every two hours due to these medical issues. She described the bus driver as being able to sleep sitting up, but also stated that "as soon as her feet hit the floor, she's awake" (after getting out of bed). The bus driver had cervical fusion surgery in 2016, which limited her ability to move her head from side to side. According to her friend, the bus driver had planned to take the afternoon off on March 11, the day of the crash, for treatment for the headaches.

Surveillance video from her morning shift on March 11 showed the bus driver rubbing her neck and shoulders frequently, suggesting that she was experiencing discomfort in those areas. At four-way stops, the bus driver looked both ways for traffic by turning her torso along with her neck. The bus driver visited her chiropractor after her morning shift on March 11. She complained of back issues that had worsened after slipping in the mud, with the pain being 5-6 out of 10 at its worst. She stated that her pain was frequent and disrupted her normal sleep habits. She also reported trouble with movement of the affected joints. Treatment notes indicated that the bus driver was instructed that recovery may take several days, with roughly a 50% improvement in 3-4 days and a 90% improvement or better in 7-10 days. Investigators interviewed the chiropractor, and he described the bus driver's demeanor that day as normal. He stated that he did not know when she had slipped in the mud, although he surmised that it was within the past week. He had assessed her range of motion as normal and stated that her fusion and surgeries had not affected her mobility a great deal.

1.8 Illinois School Bus Driver Medical Examination

The school district provided the NTSB with the bus driver's completed Illinois bus driver physical examination forms from March 2023 and February 2024. The Health History section of her March 2023 examination indicated a history of "Head or spinal injuries," "Arthritis," and "Permanent defect from illness, disease, or injury." The bus driver indicated to the examiner that these conditions persisted but would not interfere with the safe operation of a school bus. In the examination box labeled "Spine" the examiner noted that the bus driver provided a compact disc that contained information on two surgeries and fusion. Her medical examiner, who was a doctor of chiropractic in Rushville, and who was a Federal Motor Carrier Safety Administration (FMCSA) certified medical examiner (CME), certified the bus driver as being physically qualified to operate a school bus according to Illinois state regulations.

Her February 2024 medical examination was conducted by a doctor of osteopathy in Rushville. This examiner was not an FMCSA CME, nor was this required by Illinois statute. In the Health History section of this examination, the examiner

checked the box for "Arthritis," but she did not check the box for "Back injury or strain," or for "permanent defect from illness, disease, or injury." The examination noted that the bus driver had a history of cervical surgery in the box labeled "Spine." The medical examiner certified the bus driver as being physically qualified to operate a school bus. According to the examination form, the bus driver's hearing and corrected visual acuity was within the thresholds set by Illinois.

Illinois Administrative Code Title 92, Section 1035.2, entitled "Annual Medical Examination and Certificate," describes the medical fitness and drug testing requirements that must be met for an individual to operate a school bus. In terms of medical fitness, Section 1035.2 of the Illinois Administrative Code is virtually identical to the Federal medication fitness requirements described in 49 Code of Federal Regulations (CFR) 391.41. However, the Illinois Administrative Code does not have equivalent regulations to CFR 391.43, which requires interstate commercial drivers to be examined by a Certified Medical Examiner (CME) using the official FMCSA "Medical Examination Report Form" (MCSA-5875). 14,15,16,17,18 Instead, school bus drivers may see any licensed physician, an advanced practice nurse who has a written collaborative agreement with a collaborating physician that authorizes him or her to perform medical examinations, or a physician assistant who has been delegated the performance of medical examinations by his or her supervising physician. 19 The school bus driver must pass a health examination on an annual basis and must be evaluated using the "Physical Examination and Certificate for Illinois School Bus Driver" form (Illinois school bus driver examination form), which is significantly different from the MCSA-5875.20 Some of the more salient differences between the MCSA-5875 and the Illinois school bus driver physical examination form are listed below:

¹⁴ FMCSA Form MCSA-5875 (dot.gov). Accessed May 5, 2024.

¹⁵ According to 92 Illinois Administrative Code 1035.20, a school bus applicant who has undergone a medical examination complying with 49 CFR 391.41 within 90 days of applying does not have to undergo the state-required school bus driver physical examination, provided that the applicant submits to the Illinois Secretary of State a copy of the federal medical examiner's certificate or completed form.

¹⁶ 92 Illinois Administrative Code 1035.10.

¹⁷ It should be noted that all other Illinois nonexempt CDL drivers who operate interstate and intrastate must comply with the federal regulations in 49 CFR 391. See <u>Commercial Driver's License (ilsos.gov)</u>, accessed May 5, 2024.

¹⁸ 625 ILCS 5/ Illinois Vehicle Code. (ilga.gov). Accessed May 5, 2024.

¹⁹ A chiropractor is considered a physician under Illinois statute. See <u>210 ILCS 85/10.8</u>; <u>Speak Up - Scope of Practice - Illinois Chiropractic Society</u>.

²⁰ dsd sb4.pdf (ilsos.gov). Accessed May 5, 2024.

Table 5. Comparison of differences between the MCSA-5875 and the Illinois school bus driver examination form.

examination form.		
Comparison	MCSA-5875	Illinois school bus driver exam form
Medical examiner	Physician, advanced practice nurse, physician assistant, and others	Physician, advanced practice nurse, and physician assistant
Training specific to commercial drivers	Trained and certified by FMCSA	No specialized training
Driver health history	Filled out by driver	Filled out by examiner
Drug testing	None	Part of examination
Contagious diseases	None	Inquiries about TB, gonorrhea, syphilis, and hepatitis; TB screening
Failed a drug test?	In health history section	None
List of medications	Filled out by driver	Not in questionnaire, but instructions state that driver may not be on a drug that may interfere with the ability to operate a school bus safely
History of surgery	Filled out by driver/physical exam	Not in questionnaire, but inquiries about permanent defects, injuries, and diseases. Physical exam section mentions scars
Sleep disorders	In health history section/physical exam	None
Diabetes	Yes, differentiates insulin use	Not in questionnaire, but instructions do mention insulin prohibition
History of stroke	In health history section/physical exam	None
Dizziness, numbness, memory loss, headaches	In health history section	None
Blood clots or bleeding problems	In health history section	None
Heart disease, heart procedure, hypertension, cholesterol	In health history section/physical exam	Questionnaire asks about cardiovascular disease. Instructions list more specifics
Gait	In physical examination	None
Certificate qualification	2 years or less depending on driver health	1 year only
Space for additional descriptions or narratives	7	1

Like the MCSA-5875, the Illinois school bus driver examination form may be filled out by health care professionals of different backgrounds. However, the MCSA-5875 form may only be completed by an examiner who has been trained and certified

by the FMCSA to perform physical qualification examinations and issue medical certificates to commercial drivers. Certified examiners are also given a 120-page manual to guide them, and they may contact the FMCSA for further assistance.²¹ The 4-page Illinois school bus driver examination form includes about 2.5 pages of instruction to help an examiner determine school bus driver health.

The Illinois school bus driver examination form requires each school bus driver to submit to a urinalysis at the time of examination for screening of amphetamines, cocaine, marijuana, opiates, phencyclidine, and alcohol. As shown in Table 6, the length of time these substances are detectable in urine vary. In addition, school bus drivers who possess a CDL are subject to the drug testing regulations in 49 CFR 382.305.^{22,23}

Table 6. Length of Time Drugs of Abuse Can Be Detected in Urine.²⁴

Drug	Time
Alcohol	7-12 h
Amphetamine	48 h
Methamphetamine	48 h
Barbiturate	
Short-acting (eg, pentobarbital)	24 h
Long-acting (eg, phenobarbital)	3 wk
Benzodiazepine	
Short-acting (eg, lorazepam)	3 d
Long-acting (eg, diazepam)	30 d
Cocaine metabolites	2-4 d
Marijuana	
Single use	3 d
Moderate use (4 times/wk)	5-7 d
Daily use	10-15 d
Long-term heavy smoker	>30 d
Opioids	
Codeine	48 h
Heroin (morphine)	48 h
Hydromorphone	2-4 d
Methadone	3 d
Morphine	48-72 h
Oxycodone	2-4 d
Propoxyphene	6-48 h
Phencyclidine	8 d

Unlike the MCSA-5875, the Illinois school bus driver examination form prompts the examiner to inquire about communicable diseases, such as gonorrhea, syphilis, hepatitis, and tuberculosis. New school bus drivers and re-applicants whose permit has lapsed for more than 30 days are also required to submit to a tuberculosis screening test as part of the exam.

The Illinois school bus driver examination form does not include questions in two areas that have been commonly linked to commercial vehicle crashes: sleep

²¹ Medical Examiner's Handbook 2024 Edition | FMCSA (dot.gov). Accessed May 5, 2024.

²² Illinois Administrative Code Title 92, Part 1035.32.

²³ Federal Drug and Alcohol Testing Regulation (dot.gov). Accessed July 9, 2024.

²⁴ Moeller, Karen E., Kelly C. Lee, and Julie C. Kissack. "Urine drug screening: practical guide for clinicians." In Mayo clinic proceedings, vol. 83, no. 1, pp. 66-76. Elsevier, 2008.

disorders and impairing drugs. The MCSA-5875 includes a box that prompts drivers to list all the drugs they are currently taking, including prescription, over the counter, herbal remedies, and diet supplements. The Illinois school bus driver examination form has no such question, although the medical examiner instructions state under Section B (page 2 of form), "Instructions to Medical Examiner," that "The Federal Motor Carrier Safety Regulations provide that no driver shall use a narcotic or other habit-forming drugs." In Section E (page 4 of form), "Physical Qualification for Driver," it states that an applicant shall be considered physically qualified to operate a school bus only if he/she, "does not use amphetamines, cocaine, marijuana, opiates, phencyclidine, and/or any other mind-altering drug or substance, or any prescribed drug that may interfere with the ability to operate a school bus safely."

Regarding sleep disorders, the Driver's Health History Section of the MCSA-5875 asks about sleep disorders, pauses in breathing while asleep, daytime sleepiness, and loud snoring. It also asks if the driver had ever had a sleep test for sleep apnea. The Illinois school bus driver examination form does not inquire about sleep issues a driver might be experiencing, neither in the questionnaires nor in the instructions.

1.9 Social Security Disability Records

According to the records provided by the school district, investigators discovered that the bus driver had been on Social Security disability insurance (SSDI) since 2016. Disability insurance is a Federal program that provides monthly payments to people who have a disability that stops or limits their ability to work.²⁵ There are several conditions that must be met to qualify for disability; however, in terms of the disability itself, it must prevent an individual from working at a substantial gainful activity; it must prevent an individual from performing work that he/she had done previously or prevent adjustment to other work; and the disability must be expected to last for at least 1 year or to result in death. The NTSB obtained the bus driver's SSDI records and discovered that the disability insurance was granted due to disorders of the back (discogenic and degenerative), as well as for osteoarthritis.

Under SSDI, an individual may work and still retain disability insurance if earnings fall below a certain threshold. For 2024, that threshold was \$1,550 per month. The school district was aware that she was receiving disability payments and worked with the bus driver to ensure that her pay was within that threshold. According to the Director of Transportation, the school district did not inquire further about the bus driver's disability because she passed the physical examination for Illinois bus drivers. When asked if the school district provided bus drivers with a description of the physical tasks they must perform as part of their duties, the Director of Transportation stated, "They know what they are signing up for, to drive a bus."

²⁵ <u>Disability | SSA</u>. Accessed July 8, 2024.

According to the school district, it had a job description of duties expected of school bus drivers, although a printed copy was not provided to the drivers. It listed 14 performance responsibilities related to the position of school bus driver. Except for "Must complete a daily pre-trip inspection report before each trip of each day and anytime a different bus is driven," and "Must keep bus clean both inside and out," it did not describe the physical activities that might be necessary of a school bus driver, especially during an emergency, such as assisting injured students evacuate, using the rear emergency door or an emergency window, or climbing in and out of the front doorway quickly. As mentioned, the bus driver did not receive a copy of this document and there was no record that the driver acknowledged receipt of these responsibilities.

1.10 NASDPTS Survey

In June 2024, at the request of the NTSB, the National Association of State Directors of Pupil Transportation Services (NASDPTS) surveyed its members regarding the process it uses to determine the fitness of school bus drivers. One survey question inquired if the state evaluated its school bus drivers using the MCSA-5875 or with its own medical form. A second survey question inquired if the state required its school bus drivers to be seen by an FMCSA certified medical examiner. Directors from 37 states responded to the survey. The survey requested that the directors support their answers by providing Web links to their state's statutes or policies; however, support was not always provided. Because of this and the absence of replies from 13 states and the District of Columbia (DC), the NTSB conducted a Web search of each state's statutes and policies regarding school bus medical oversight. The NTSB found that 36 states and DC require the use of the MCSA-5875 when evaluating an intrastate school bus driver who possesses a CDL. Thirty-three states and DC also require the evaluations to be performed by an FMCSA certified medical examiner. An Appendix to this report summarizes the results of this research.

The NASDPTS survey also inquired if each of its members had school bus driver fitness to drive requirements (i.e., skills test), and if so, to support their answers with links to the requirements. Several members indicated that they did; however, it was evident from the links that there was some confusion about the meaning of the question, with some respondents linking to physical performance tests (i.e., ensuring that a driver is aware of and can perform the physical demands of the job) and others linking to medical-related fitness requirements.

1.11 Toxicology

The Schuyler County coroner ordered an autopsy on the bus driver on March 11, 2024. The autopsy was conducted at Springfield Memorial Hospital on March 12, 2024. The submitted specimens from the bus driver were sent to the Federal Aviation Administration's (FAA) Forensic Sciences Laboratory for toxicological analysis at the NTSB's request. The FAA received the samples on March 21, 2024, and completed the analysis on April 26, 2024. The analysis indicated that the bus driver did not have

ethanol or illicit drugs in her system; several prescription drugs were present in the bus driver's blood, liver, muscles, and brain. Some of these drugs, such as promethazine, tramadol, and gabapentin are known to have sedating effects.²⁶²⁷ Caffeine was also found in her system. See the Medical Specialist Factual report for more information.

1.12 Phone Records

The Illinois State Police (ISP) discovered a damaged phone at the crash scene, which was later confirmed to be the bus driver's Samsung Galaxy S22 Ultra. The ISP and the NTSB attempted to conduct a data extraction and analysis of the phone's contents to determine if it contained information that might be of use to this investigation; however, it was too damaged for them to conduct an extraction.

The NTSB also obtained the bus driver's phone records.28 Investigators used these calls and outgoing text messages, as well as interview information, to create an estimate of the bus driver's sleep opportunity. Note that these records only contain information on calls and texts on native applications and not third-party applications. Figure 1 illustrates the approximate times the driver was using the native call and text applications on her phone in the days leading to the crash, her on-duty times, and her sleep opportunity as reported by her family and friend.²⁹ Daylight Saving Time occurred on the morning of Sunday, March 10; and, according to U.S. Cellular representatives, the records reflect the change in time from Central Standard Time to Central Daylight Time. Based on these phone records, the bus driver last interacted with the native call and text applications at 11:07 a.m. on March 11, 2024, 22 minutes before the crash, when she made a 49 second call. There is no evidence that she was using her phone at the time of the crash. Based on her schedule, this call probably occurred prior to her starting her midday shift.

²⁶ Promethazine: MedlinePlus Drug Information; Gabapentin: MedlinePlus Drug Information; Tramadol: MedlinePlus Drug Information. Accessed June 7, 2024.

 $^{^{27}}$ Although tramadol is an opioid, it is not among the opiates that are required to be detected under $\frac{49}{100}$ CFR 40.85.

²⁸ Human Performance Attachment - Bus Driver Phone Records.

²⁹ The phone records only included interactions with the native call and texting applications. The records did not identify Web or third-party application usage.



Figure 4. Bus driver phone usage in the days leading up to the crash. The "Date" cells indicate if times are in Central Standard Time (CST) or Central Daylight Time (CDT).

2.0 Truck Driver

2.1 Background and License History

The truck driver that was involved in the crash was a 72-year-old male with a Class A commercial driver's license, issued February 2021 and set to expire November 2024. He had an endorsement for tanks, which allowed him to haul a trailer designed to carry any liquid or gaseous material within the tank.

According to CDLIS, the truck driver had three convictions, two accidents, and no withdrawals.³⁰ In November 2014, the truck driver was cited and later convicted for not wearing his seatbelt in a noncommercial vehicle. In August 2015, he was cited and later convicted for driving more than 15 MPH over the speed limit in a noncommercial vehicle. And in February 2019, he was cited and later convicted for driving too fast for conditions in a commercial vehicle. His two crashes were in commercial vehicles and occurred in February 2019 and September 2020, with both leading to incapacitating injuries. The truck driver had a valid 2-year U.S. Department of Transportation (USDOT) medical certificate, issued January 2024, and set to expire January 2026. His medical examiner was a nurse practitioner registered as a CME.

2.2 Employment

The truck driver began working for Beaird Transport, Inc. (carrier) in March 2020. However, the truck driver did not start driving for the carrier until March of 2021. Before working for the carrier, the truck driver was an owner operator with his own authority and truck. He did not operate his own truck once he started working for the carrier.

According to the carrier, they did not train the truck driver because he was already an experienced commercial driver. The carrier provided its drivers with an employee manual and had policies pertaining to hand-held phone use and drug and

³⁰ Human Performance Attachment - Truck Driver CDLIS Records.

alcohol abuse. The truck driver had signed off acknowledging the receipt of these documents.

According to the carrier, they did not have disciplinary issues with the truck driver or any other driver in their employment. If they had an issue with a driver, they would simply fire the individual.

2.3 Drug Testing

According to the carrier because of an administrative error, it did not submit the truck driver to a pre-employment drug test, and the truck driver was not part of a random drug test pool.

2.4 Duties

According to the carrier, the truck driver hauled sand, rock, gravel, construction debris, and construction materials. The truck driver did not have a set schedule but worked consistent hours. He usually started work at 6:30 a.m. and ended his shift between 3:30 p.m. and 4 p.m. He and the other truck drivers were paid by the load and would usually pick up and drop off four loads a day. Trucks for the carrier usually operated within an 80-mile radius, and the truck driver was familiar with the surrounding roads.

2.5 Pre-Crash Activities

2.5.1 72-Hour History

The carrier provided investigators with the truck driver's load trip sheets, which indicated that the truck driver worked a steady shift from Monday through Friday. The carrier recreated the trip sheet for March 11 since the original was lost in the crash and ensuing fire. See Table 7.

Little is known about the truck driver's pre-crash activities outside of work. The truck driver was off duty the two days prior to the crash. The NTSB contacted his wife to discuss the truck driver's activities, but she declined to be interviewed.

Table 7. Truck driver load trip sheet.

Date	Time on-duty	Time off-duty	Hours
March 11, 2024	6:30 a.m.	Crash 11:29 a.m.	5:00
March 8, 2024	6:30 a.m.	3 p.m.	8:30
March 7, 2024	6:30 a.m.	4 p.m.	9:30
March 6, 2024	6:30 a.m.	3:30 p.m.	9:00
March 5, 2024	6:30 a.m.	3:30 p.m.	9:00
March 4, 2024	6:30 a.m.	3:30 p.m.	9:00

March 1, 2024	2 p.m.	4 p.m.	2:00
February 29, 2024	12:30 p.m.	4 p.m.	3:30
February 28, 2024	6:30 a.m.	3 p.m.	8:30
February 27, 2024	6:30 a.m.	3 p.m.	8:30
February 26, 2024	6:30 a.m.	12 p.m.	5:30
February 25, 2024	6:30 a.m.	3 p.m.	8:30

2.6 Health History

The carrier provided a copy of the truck driver's most current MCSA-5875, dated January 2024. In the Health History section, the truck driver checked 'Yes' to eye problems, high blood pressure, broken bones, tobacco, and alcohol. The truck driver stated that he had cataract surgery in 2023, high blood pressure "at one time" but had not had to take medication since 2022, had broken his pelvis in 1991, had been a smoker previously, and was an occasional drinker (5-6 drinks in the past 6 months). The truck driver also listed having lung and throat cancer. The medical examiner noted that the truck driver had hearing and uncorrected vision within federal regulatory limits, normal blood pressure, and no abnormalities that would preclude the truck driver from obtaining a medical certificate. She provided him with a certificate that was set to expire in January 2026.

When interviewed, the carrier mentioned that the truck driver was being treated for cancer but was doing well and was in good spirits at the time of the crash.

2.7 Toxicology

The Schuyler County coroner ordered an autopsy on the truck driver on March 11, 2024. The autopsy was conducted at Springfield Memorial Hospital on March 12, 2024. The coroner submitted specimens from the truck driver to the FAA for toxicological analysis at the NTSB's request. The FAA received the samples on March 21, 2024, and completed the analysis on April 25, 2024. The analysis indicated that the truck driver did not have ethanol or illicit drugs in his system. The toxicology results showed that the truck driver was taking a prescription drug, which is discussed in the Medical Specialist Factual Report.

2.8 Phone Records

NTSB investigators obtained the truck driver's phone records (Figure 5).³¹ It showed that the truck driver used his phone sparingly and only for calls. Daylight Saving Time occurred on the morning of Sunday, March 10; and, according to U.S. Cellular representatives, the records reflect the change in time from Central Standard Time to Central Daylight Time. The information gathered by NTSB investigators was

HUMAN PERFORMANCE GROUP CHAIR'S FACTUAL REPORT

³¹ Human Performance Attachment - Truck Driver Phone Records.

not comprehensive enough to make an estimate on sleep opportunity for the truck driver.

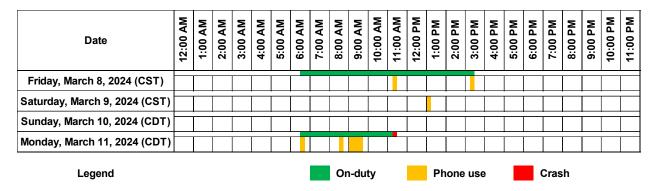


Figure 5. Truck driver phone usage in the days leading up to the crash. The "Date" cells indicate if times are in Central Standard Time (CST) or Central Daylight Time (CDT).

E. GENERAL FACTORS

3.0 Weather

The closest official National Weather Service weather station to the crash site was located approximately 1.5 miles east of the crash site (KILRUSHV9). Observations closest to the time of the crash are shown in Table 8.

Table 8. Weather data from weather station KILRUSHV9.

Time (CDT)	11:30 a.m.
Temperature	58.5° F
Dew Point	38° F
Humidity	47%
Pressure	30.15 in
Wind Dir.	WSW
Wind Speed	11 mph
Wind Gust Speed	12 mph
Precipitation	0.0
Events	None
Conditions	N/A

4.0 Astronomical Factors

According to the Earth System Research Laboratory/Global Monitoring Division of the National Oceanic and Atmospheric Administration, apparent sunrise in the immediate area of this crash occurred at 7:19 a.m., and apparent sunset occurred at

7:06 p.m. At the time of the crash the Sun was shining from the southeast and would not have been a source of glare for the two drivers.

F. DOCKET MATERIAL

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

LIST OF ATTACHMENTS

Human Performance Attachment - Bus Driver CDLIS Records

Human Performance Attachment - Bus Driver Work History

Human Performance Attachment - Bus Driver Drug Tests

Human Performance Attachment - Interview with Bus Driver's Family

Human Performance Attachment - Interview with Bus Driver's Friend

Human Performance Attachment - Bus Driver Large Bus Activity Summary

Human Performance Attachment - Bus Driver Phone Records

Human Performance Attachment - Truck Driver CDLIS Records

Human Performance Attachment - Truck Driver Phone Records

Submitted by:

Rafael Marshall Senior Investigator

G. APPENDIX

Below are the results of Web research conducted by the NTSB to answer two questions: 1) How many states required the use of the MCSA-5875 when examining the medical fitness of its intrastate school bus drivers possessing a CDL, and 2) how many states required these examinations to be performed by an FMCSA certified medical examiner. The NTSB attempted to identify state statutes that would answer these questions; however, in cases where statutes could not be found, the NTSB relied on documents obtained from each state's department of education or department of transportation. When documents could not be located, the NTSB contacted representatives from the National Association of State Directors of Pupil Transportation Services (NASDPTS) or identified from state websites. Requirements and procedures may differ by locality in each state.

State	MCSA-5875 form	FMCSA CME required
Alabama	No ³²	No ³³
Alaska	Yes ³⁴	Yes ³⁵
Arizona	Yes ³⁶	No ³⁷
Arkansas	No ³⁸	No ³⁹
California	Yes ⁴⁰	Yes ⁴¹
Colorado	Yes ⁴²	Yes ⁴³
Connecticut	Yes ⁴⁴	Yes

 $^{{}^{32}\}underline{\text{https://www.alabamaachieves.org/wp-content/uploads/2021/08/Alabama-Physical-Examination-Report-Form.pdf}.$

³³https://www.alabamaachieves.org/wp-content/uploads/2023/01/TRA 2023120 Bus-Driver-Handbook-2023 V1.0.pdf.

³⁴https://www.akleg.gov/basis/aac.asp#2.90.015.

³⁵https://casetext.com/regulation/alaska-administrative-code/title-2-administration/chapter-90-driver-licensing-and-safety-responsibility/article-2-school-bus-driver-endorsement/section-2-aac-90015-application-for-school-bus-driver-endorsement.

³⁶https://www.azdps.gov/services/enforcement-services/student-transportation; https://apps.azsos.gov/public_services/Title_13/13-13.pdf;

https://www.azdps.gov/sites/default/files/2023-07/quick reference requirement guide.pdf.

³⁷https://www.azdps.gov/services/enforcement-services/student-transportation. Called AZ student transportation unit on August 29, 2024 and was told that school bus driver did not have to see a CME.

³⁸ https://dpsaft.ade.arkansas.gov/Files/Bus Driver Physical Form EDITED 201019164630.pdf

³⁹https://dese.ade.arkansas.gov/Files/20210208151716 6-19-101 through 6-19-128.pdf; https://dpsaft.ade.arkansas.gov/Files/Bus Driver Physical Form EDITED 201019164630.pdf

⁴⁰ https://www.shastacoe.org/uploaded/Dept/trans/2015-16/School Bus Driver Qualifications.pdf

⁴¹ https://codes.findlaw.com/ca/vehicle-code/veh-sect-12517-2/

⁴²https://www.cde.state.co.us/sites/default/files/documents/cdenutritran/download/pdf/operationalrules041309.pdf

⁴³https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=6941&fileName=1%20CCR%2 0301-26

⁴⁴https://law.justia.com/codes/connecticut/title-14/chapter-248/section-14-

²⁷⁶a/#:~:text=(b)%20No%20person%20shall%20operate,1)%20Furnished%20evidence%20to%20the

Delaware	No ⁴⁵	No
District of Columbia	Yes ⁴⁶	Yes
Florida	Yes ⁴⁷	Yes
Georgia	No ⁴⁸	No ⁴⁹
Hawaii	Yes ⁵⁰	Yes
Idaho	Yes ⁵¹	Yes ⁵²
Illinois	No ⁵³	No
Indiana	Yes ⁵⁴	Yes
Iowa	Yes ⁵⁵	Yes ⁵⁶
Kansas	Yes ⁵⁷	Yes ⁵⁸
Kentucky	Yes ⁵⁹	Yes
Louisiana	Yes ⁶⁰	Yes
Maine	Yes ⁶¹	Yes ⁶²

https://regulations.delaware.gov/AdminCode/title2/2000/2200/Driver/2222.shtml; https://law.justia.com/codes/delaware/title-21/chapter-27/subchapter-i/section-2708/

0#:~:text=Must%20possess%20and%20maintain%20a,GED%20or%20higher%20is%20preferred.

https://iowadot.gov/mvd/CDL/FedMedBrochure.pdf#page=2

https://www.ksde.org/Portals/0/School%20Bus/Regulations/Driver%20Mandates%20Feb2020.pdf?ver =2020-05-14-130402-360

⁴⁵https://www.doe.k12.de.us/cms/lib/DE01922744/Centricity/Domain/462/DE%20Driver%20%20Phys %20Form%206-28-17%20%20Final.pdf;

⁴⁶https://osse.dc.gov/page/motor-vehicle-operator-

⁴⁷ https://flrules.org/gateway/ruleno.asp?id=6A-3.0141

⁴⁸https://www.gadoe.org/Finance-and-Business-Operations/Pupil-Transportation/Documents/Post-Offer%20and%20Annual%20Physical%20Examination%20Form%202012.pdf

⁴⁹ https://www.gadoe.org/External-Affairs-and-Policy/State-Board-of-Education/SBOE%20Rules/160-5-3-.08%20Post.pdf

⁵⁰https://casetext.com/regulation/hawaii-administrative-rules/title-19-department-of-transportation/subtitle-5-motor-vehicle-safety-office/chapter-143-pupil-transportation-safety/section-19-143-6-driver-qualifications; https://casetext.com/regulation/hawaii-administrative-rules/title-19-department-of-transportation/subtitle-5-motor-vehicle-safety-office/chapter-141-motor-carrier-safety-regulations/section-19-141-1-purpose

⁵¹https://www.sde.idaho.gov/student-transportation/training/manuals/2019-School-Bus-Driver-Manual.pdf

⁵² https://legislature.idaho.gov/statutesrules/idstat/title33/t33ch15/sect33-1509/

⁵³ https://www.ilsos.gov/publications/pdf_publications/dsd_sb4.pdf

⁵⁴ https://iga.in.gov/laws/2021/ic/titles/20#20-27-8

⁵⁵ https://educate.iowa.gov/media/1091/download?inline

⁵⁶https://www.legis.iowa.gov/docs/code/321.375.pdf;

⁵⁷ https://www.law.cornell.edu/regulations/kansas/K-A-R-91-38-6;

⁵⁸https://www.usd320.com/vimages/shared/vnews/stories/5a0f18d2cc620/Transportation-hnbk%20draft%20cleaned%20201806.pdf

⁵⁹ https://apps.legislature.ky.gov/law/statutes/statute.aspx?id=53995

⁶⁰ https://www.doa.la.gov/media/b0ehowxe/28v113.pdf

⁶¹ https://www.maine.gov/doe/schools/transportation/operation/drivers

⁶²https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.maine.gov%2Fdoe%2Fsites%2Fmaine.gov.doe%2Ffiles%2Finline-files%2FChapter%252082.docx&wdOrigin=BROWSELINK

Maryland	Yes ⁶³	Yes
Massachusetts	No ⁶⁴	No
Michigan	Yes ⁶⁵	Yes ⁶⁶
Minnesota	Yes ⁶⁷	Yes ⁶⁸
Mississippi	No ⁶⁹	No
Missouri	No ⁷⁰	No
Montana	Yes ⁷¹	No
Nebraska	Yes ⁷²	Yes ⁷³
Nevada	Yes ⁷⁴	Yes ⁷⁵
New Hampshire	Yes ⁷⁶	Yes
New Jersey	Yes ⁷⁷	Yes
New Mexico	Yes ⁷⁸	Yes
New York	No ⁷⁹	No
North Carolina	Yes ⁸⁰	Yes
North Dakota	Yes ⁸¹	Yes

⁶³ https://dsd.maryland.gov/regulations/Pages/11.19.05.01.aspx

https://www.p12.nysed.gov/schoolbus/regulations/html/section156.3_safety_regulations.html

80 https://www.ncdot.gov/dmv/license-id/driver-licenses/school-bus/Pages/requirements.aspx

81 https://www.nd.gov/dpi/sites/www/files/documents/SAO/Transportation/DPISchoolBusDriverGuide

⁶⁴ https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXIV/Chapter90/Section8A

⁶⁵https://www.legislature.mi.gov/(S(eikntlkemuyv01fwosxwclsc))/documents/mcl/pdf/mcl-257-1853.pdf

⁶⁶ https://legislature.mi.gov/documents/2021-2022/publicact/htm/2021-PA-0131.htm

⁶⁷https://casetext.com/statute/minnesota-statutes/transportation/chapter-171-drivers-licenses-and-training-schools/miscellaneous/section-171321-qualifications-of-school-bus-and-type-iii-vehicle-drivers#:~:text=No%20person%20shall%20drive%20a,not%20a%20school%20bus%20endorsement ⁶⁸https://www.revisor.mn.gov/statutes/cite/171.321#:~:text=No%20person%20shall%20drive%20a,not%20a%20school%20bus%20endorsement

⁶⁹https://www.mdek12.org/sites/default/files/Offices/MDE/OA/OSOS/Pupil%20Transportation/bus-d; river.pdf; https://regulations.justia.com/states/mississippi/title-7/part-3/chapter-81/rule-7-3-81-6/
⁷⁰ https://dese.mo.gov/who-can-perform-school-bus-driver-physical

⁷¹https://leg.mt.gov/bills/mca/title_0200/chapter_0100/part_0010/section_0030/0200-0100-0010-0030.html

⁷²https://casetext.com/regulation/nebraska-administrative-code/education-department-of/title-92-nebraska-department-of-education/chapter-91-regulations-governing-driver-qualifications-operational-procedures-for-pupil-transportation-vehicles/section-92-91-003-pupil-transportation-driver-qualification-criteria;

⁷³ https://www.education.ne.gov/wp-content/uploads/2020/02/CLEANRule91_2020.pdf ⁷⁴https://webapp-strapi-paas-prod-nde-

^{001.}azurewebsites.net/uploads/Bus_Driver_Training_Manual2021_4c859f753a.pdf

⁷⁵ https://epubs.nsla.nv.gov/statepubs/epubs/31428003041577-2021.pdf

https://casetext.com/statute/new-hampshire-revised-statutes/title-15-education/chapter-200-health-and-sanitation/school-health-services/section-20037-medical-examination-of-school-bus-operators
 https://www.nj.gov/mvc/pdf/business/NJDR-15.pdf

⁷⁸https://webnew.ped.state.nm.us/wp-content/uploads/2024/03/6.41.4-NMAC-Updated-1-16-2024.pdf

⁷⁹https://dmv.ny.gov/forms/ds874.pdf;

Ohio	No ⁸²	No ⁸³
Oklahoma	Optional ⁸⁴	No
Oregon	Yes ⁸⁵	Yes
Pennsylvania	No ⁸⁶	No ⁸⁷
Rhode Island	Yes ⁸⁸	Yes
South Carolina	Yes ⁸⁹	Yes ⁹⁰
South Dakota	Yes ⁹¹	Yes
Tennessee	Yes ⁹²	Yes ⁹³
Texas	Yes ⁹⁴	Yes
Utah	Yes ⁹⁵	Unknown
Vermont	Yes ⁹⁶	Yes ⁹⁷
Virginia	No ⁹⁸	No ⁹⁹

2020.pdf;

https://www.nd.gov/dpi/districtsschools/finance-operations/transportation

82https://education.ohio.gov/getattachment/Topics/Finance-and-Funding/School-

Transportation/Driver-Training/T-8-Physical-updated-9-23-2022.pdf.aspx?lang=en-US

83 https://codes.ohio.gov/ohio-administrative-code/rule-3301-83-07

84 https://sde.ok.gov/sites/ok.gov.sde/files/documents/files/210-30-5-8%20Proposed%20Text.pdf.

Called Oklahoma Department of Education and confirmed that school bus driver may go to any medical examiner.

- 85 Oregon Secretary of State Administrative Rules
- 86 https://www.dot.state.pa.us/public/DVSPubsForms/BDL/BDL%20Form/DL-704.pdf
- ⁸⁷https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/067/chapter71/s71. 3.html&d=
- 88 https://dmv.ri.gov/licenses-permits-ids/commercial/school-bus-transportation
- 89 https://scdetransportation.mrooms.net/mod/resource/view.php?id=4305.
- https://www.scstatehouse.gov/code/t59c067.php; https://law.justia.com/codes/south-carolina/title-59/chapter-67/section-59-67-160/
- 91 https://sdlegislature.gov/Statutes/32-12A-24
- ⁹²https://www.knoxschools.org/cms/lib/TN01917079/Centricity/Domain/1040/School%20Bus%20Handbook.pdf
- 93 https://www.tn.gov/content/dam/tn/safety/documents/medical.pdf;

https://www.knoxschools.org/cms/lib/TN01917079/Centricity/Domain/1040/School%20Bus%20Handbook.pdf

- 94https://texreg.sos.state.tx.us/public/readtac\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=37&pt=1&ch=14&rl=12
 95 https://schools.utah.gov/financialoperations/pupiltransportation/trainings/IntroductionStudentTrans
- ⁹⁵https://schools.utah.gov/financialoperations/pupiltransportation/trainings/IntroductionStudentTransportation.pdf;

https://www.canyonsdistrict.org/policies/personnel/esp/420-7/school-bus-operator-qualifications/;

https://schools.utah.gov/financial operations/pupiltransportation/resources/utahschool buses and operations standards/2010 Standards.pdf

⁹⁶ https://dmv.vermont.gov/CVO/school-bus/physicals

97https://dmv.vermont.gov/sites/dmv/files/documents/VN-003-Schoolbus Manual.pdf;

https://legislature.vermont.gov/statutes/section/23/013/01282

⁹⁸https://www.doe.virginia.gov/programs-services/school-operations-support-services/pupil-transportation/forms;

https://uvahealth.com/sites/default/files/2018-05/WorkplaceHealthBusDriverPhysicalForm.pdf

99https://law.lis.virginia.gov/admincode/title8/agency20/chapter70/section280/#:~:text=No%20perso

Washington	Yes ¹⁰⁰	Yes
West Virginia	Yes ¹⁰¹	Yes
Wisconsin	No ¹⁰²	No ¹⁰³
Wyoming	Yes ¹⁰⁴	Yes

n%20shall%20drive%20a,for%20the%20applicable%20employment%20period. https://ris.dls.virginia.gov/uploads/8VAC20/forms/7a38f006390~1m.pdf

¹⁰⁰ https://ospi.k12.wa.us/sites/default/files/2023-

^{08/}january2020washingtonstatestudenttransportationrcwsandwacs.pdf

¹⁰¹ https://apps.sos.wv.gov/adlaw/csr/ruleview.aspx?document=17156

¹⁰² https://wisconsindot.gov/Documents/formdocs/mv3030b.pdf

¹⁰³ https://wisconsindot.gov/Pages/dmv/license-drvs/mdcl-cncrns/medbusinfo.aspx 104 https://law.justia.com/codes/wyoming/2012/title21/chapter3/section21-3-131