National Transportation Safety Board

Washington, D.C. 20594

Railroad Accident Brief

Accident No.:	DCA-07-FR-008
Location:	Chicago, Illinois
Date:	March 7, 2007
Time:	9:56 p.m. central standard time[1]
Railroads:	CN Railway and Northern Illinois Regional Commuter Railroad
Property Damage:	$75,767
Injuries:	9
Fatalities:	None
Type of Accident:	Collision

Synopsis

About 9:30 p.m. on Wednesday, March 7, 2007, the crew of CN Railway (CN) train R95491 left two locomotives, which had only air brakes applied, on a grade at the CN's interchange point at Lumber Street in Chicago, Illinois. The two uncontrolled and unmanned locomotives rolled to the north. They traveled from CN's track No. 4 onto Amtrak's track No. 4, where, at 9:56 p.m., they collided with the lead locomotive of standing Northern Illinois Regional Commuter Railroad (Metra) train 839. At the time of the collision, the event recorder data indicated, the speed of the runaway CN locomotives was 14 mph. They had traveled about 1,789 feet.

About 55 passengers were aboard the eighth Metra passenger car at the time of the collision. The other seven passenger cars were empty. Seven passengers and the Metra engineer and assistant conductor were transported to area hospitals with minor injuries; they were treated and released. The total property damage was estimated to be $75,766.

The Accident

The crew of CN train R95491 reported for duty at 7:00 p.m., on March 7, 2007, at CN's Hawthorne Yard. The crew consisted of an engineer, a conductor, and a conductor trainee. All

[1] All times in this brief are central standard time.

crewmembers had been rested in accordance with the Federal Hours of Service regulations. They later told investigators that they had been well rested for their assignment.

After reporting, the crew held a job briefing and discussed the assignment with the yardmaster. Normally, the crew switched cars within Hawthorne Yard. However, on this day, a train with 99 cars had to be moved from Hawthorne Yard to Lumber Street, a CN interchange point approximately 1 mile away. The crew was told to move the 99 cars, to uncouple the two locomotives from the south end of the train, and then to move and re-couple the locomotives to the north end of the train.

About 9:30 p.m., the crew arrived at Lumber Street with the two locomotives. The south-end locomotive's air brakes were set in the lead position. The engineer told investigators that he had made an air brake application, and then he put the locomotive in trail position. This action was contrary to CN's Air Brake and Train handling rule 401 B. The rule requires the engineer to go immediately to the north-end locomotive and to put its air brakes in the lead position after setting the south-end locomotive in trail.

After arriving at Lumber Street, the engineer applied only the air brakes before he and the other crewmembers left for a restaurant directly across the street. The crewmembers told investigators that they had neither set the handbrakes nor considered setting the handbrakes, as required by CN's Rule 410. According to the CN's rules, the conductor is responsible for supervising the operation of the train, and all crewmembers must jointly ensure safe train operations. Because the coupled locomotives were left on a grade in the trailing mode without applied handbrakes, as soon as the air released from the locomotives, they started to roll on the track.

As the crew left the restaurant after eating, the engineer noticed that the locomotives were rolling north. He immediately starting chasing them but was unable to catch up. He saw the collision of the locomotives and the standing Metra train. After the collision, the other two CN crewmembers joined the engineer.

Pursuant to 49 *Code of Federal Regulations* 219, Subpart C, the Federal Railroad Administration's chemical testing regulations, the engineer, conductor, and conductor trainee supplied specimens for toxicological tests. The tests for the engineer and the engineer trainee were negative. The conductor tested negative for tetrahydrocannabinol at a cutoff of 1 ng/mL and positive for tetrahydrocannabinol carboxylic acid (TCH-COOH), an inactive metabolite of marijuana. It was not possible to correlate the level of TCH-COOH with the time the conductor had the marijuana; the level, however, was high, so it is possible that he had taken the drug around the time of the accident. The possibility that the marijuana had affected him at the time of the accident cannot be eliminated.

The crew of Metra train 839 had reported for duty at Metra's 179th Street Station at Orland Park, Illinois, at 1:28 p.m. The crew consisted of an engineer, a conductor, and an assistant conductor. The crew had been rested in accordance with the Federal Hours of Service

regulations. The train consisted of two locomotives and eight commuter-type passenger cars. Before the accident, the train had made five trips between Orland Park and Chicago Union Station. It was on its sixth run when the collision occurred.

The engineer of the Metra train told investigators that while approaching Lumber Street on track No. 4, he had observed the signal at Lumbar Street change from *slow clear* to *approach*. He braked the train to a controlled stop. He said that he was preparing to radio the Amtrak dispatcher when he observed the locomotives slowly approaching a drawbridge. He saw them increase their speed as they crossed the drawbridge. He brightened his headlight, but received no response from the approaching locomotives. He used his radio to warn the conductor to brace himself for a collision.

After the collision, the radio on the Metra train would not function. The engineer used his company-issued cellular phone to ask the conductor whether he was okay. He also called the train dispatcher and issued three emergency notifications, as required. Then, he left his cab and sat on the ground. The engineer of the CN locomotives asked the Metra engineer whether he was injured and told him that his locomotives had just gotten away. According to the event recorder data, the Metra train had been stopped for 1 minute 1 second before the collision.

Investigation

The CN engineer and conductor were qualified and properly trained to perform their duties. The conductor trainee had been a conductor on CSX Transportation since May 5, 2005, and the CN had hired him on February 12, 2007. The crewmembers of the Metra train were qualified, trained, and tested to perform their duties.

No evidence was found indicating that track conditions either caused or contributed to the accident. According to the train crews' statements, weather-related factors had not affected the performance of the crew or the trains. The postaccident inspection of the equipment and air brakes showed that the CN locomotives had no defects that would have either caused or contributed to the collision.

The main track train movements, including movements onto and off the main track and the sidings, were governed by operating rules, a wayside traffic control signal system, and an Amtrak dispatcher at Amtrak's 14th Street location in Chicago.

CN Operating Rules, in part, require the following:

- Employees must be alert and attentive, and take care to prevent injury to themselves and others—observing the condition of equipment and tools they use.
- While on duty or company property, the use or possession of narcotics, controlled substances, or medications that may adversely affect safe performance is prohibited.

- Duties of Train and Engine Crew Members—Engineers and Conductors must ensure their subordinates are familiar with their duties. Determine their experience and knowledge of the rules, and instruct them when necessary, how to perform their work properly and safely.
- Engineers are responsible for safely and efficiently operating the engine.
- Conductors supervise the operation and administration of trains—all persons employed on the train must obey the conductor's instructions.
- All crewmembers—to ensure the train is operated safely and rules are observed; all crewmembers must act responsibly to prevent accidents or rule violations. If proper action is not taken, crewmembers must remind the engineer and/or conductor of the condition, so that proper action can be taken.
- Apply the hand brakes on each locomotive left unattended outside of a mechanical facility or yard.

Probable Cause

The National Transportation Safety Board determines the probable cause of the March 7, 2007, collision of a CN Railway train and a Northern Illinois Regional Commuter Railroad train in Chicago, Illinois, was the failure of the CN Railway engineer and conductor to secure the CN Railway locomotives before leaving them unattended.

Adopted: December 20, 2007