

---

[Home](#) > [Accident Investigations](#) > [Reports](#)

## RAILROAD ACCIDENT REPORT

### Railroad Accident Report - Derailment of CN Freight Train U70691-18 With Subsequent Hazardous Materials Release and Fire

Cherry Valley, Illinois

June 19, 2009

NTSB Number: RAR-12-01

NTIS Number: PB2012-916301

Adopted February 14, 2012

[PDF](#)

#### EXECUTIVE SUMMARY

About 8:36 p.m., central daylight time, on Friday, June 19, 2009, eastbound Canadian National Railway Company freight train U70691-18, traveling at 36 mph, derailed at a highway/rail grade crossing in Cherry Valley, Illinois. The train consisted of 2 locomotives and 114 cars, 19 of which derailed. All of the derailed cars were tank cars carrying denatured fuel ethanol, a flammable liquid. Thirteen of the derailed tank cars were breached or lost product and caught fire. At the time of the derailment, several motor vehicles were stopped on either side of the grade crossing waiting for the train to pass. As a result of the fire that erupted after the derailment, a passenger in one of the stopped cars was fatally injured, two passengers in the same car received serious injuries, and five occupants of other cars waiting at the highway/rail crossing were injured. Two responding firefighters also sustained minor injuries. The release of ethanol and the resulting fire prompted a mandatory evacuation of about 600 residences within a 1/2-mile radius of the accident site. Monetary damages were estimated to total \$7.9 million.

## PROBABLE CAUSE

The National Transportation Safety Board determines that the probable cause of the accident was the washout of the track structure that was discovered about 1 hour before the train's arrival, and the Canadian National Railway Company's (CN) failure to notify the train crew of the known washout in time to stop the train because of the inadequacy of the CN's emergency communication procedures. Contributing to the accident was the CN's failure to work with Winnebago County to develop a comprehensive storm water management design to address the previous washouts in 2006 and 2007. Contributing to the severity of the accident was the CN's failure to issue the flash flood warning to the train crew and the inadequate design of the DOT-111 tank cars, which made the cars subject to damage and catastrophic loss of hazardous materials during the derailment.

The following safety issues were identified during this accident investigation: Effectiveness of the CN's internal emergency communication system Effectiveness of the CN's weather alert policies and rules Vulnerability of the DOT-111 tank car shells and fittings to damage and subsequent release of lading during derailments Inspection and maintenance of storm water detention ponds Accuracy of train consist (a listing of all the cars and their order within the train) information Construction standards for underground pipelines at railroad crossings Adequacy of storm water drainage system assessment The CN's toxicology and fatigue evaluations

As a result of this accident investigation, the National Transportation Safety Board makes safety recommendations to the U.S. Department of Transportation, the Federal Railroad Administration, the Pipeline and Hazardous Materials Safety Administration, the Association of American Railroads, the American Association of State Highway and Transportation Officials, the National Association of County Engineers, the American Public Works Association, the Institute of Transportation Engineers, the National League of Cities, the National Association of Counties, the Association of State Dam Safety Officials, the National Association of Towns and Townships, the U.S. Conference of Mayors, and the Canadian National Railway Company. The National Transportation Safety Board also reiterates two previously issued recommendations to the Federal Railroad Administration and to the Pipeline and Hazardous Materials Safety Administration.

### Resources

Press Releases  
Speeches/Testimony  
Databases  
Accident Dockets  
Training Center  
Safety Recommendations  
Strategic Plan, Performance & Accountability Reports & More  
Media Resources  
Report an Accident  
Submit a TCAS Notification

### About Us

Organization  
Across the Board  
Office Locations  
Investigative Process  
Directions to Conference Center  
Board Members  
Contact Us  
Employment  
Web Policies & Notices

### NTSB.gov

Site Map  
Glossary of Terms  
Org Chart  
FAQs  
FOIA  
No Fear  
Privacy Statement  
Open.gov

### Publications

Accident Animations  
Accident Reports  
Annual Review of Aircraft  
Accident Data

