

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, DC

CHI 96 FR 010
DERAILMENT/HAZARDOUS MATERIAL RELEASE
WISCONSIN CENTRAL, LTD
WEYAUWEGA, WISCONSIN
MARCH 4, 1996

On March 4, 1996 at about 0550 Central Standard Time, Wisconsin Central Limited (WC) train L022-4, consisting of 2 locomotive units, 68 loaded freight cars, and 13 freight cars, derailed the 17th through 50th head cars at Weyauwega, Wisconsin. Sixteen of the derailed cars contained hazardous materials, including two loaded with sodium hydroxide, seven loaded with liquefied petroleum gas (LPG), and seven loaded with propane.

The derailment resulted in a release of hazardous material that caught fire and consumed 7 of the cars loaded with LPG and propane. The fire also burned a local feed mill building. High tension electric lines were knocked down, and city water and natural gas services were disrupted. About 3,155 residents of the town were evacuated from their homes. Highways 10 and 110 were closed, as well as all county roads leading into the area.

There were no injuries directly attributable to the derailment, but three persons suffered minor injuries during the evacuation. The costs associated with the accident were \$19,679,264.

Pieces of broken rail from the "heel" area of a switch point rail were recovered in the wreckage. The broken rail displayed failure characteristics which indicated that the fractures originated from a bolt hole crack. NTSB examination and analysis of the broken rails indicated that the bolt hole crack had been present for some time. The examination also revealed that the rails and joint bars displayed many characteristics that were indicative of problems in the joint and bolt hole area. These characteristics were tell-tale signs of a problem that should have been observed and acted upon by well trained, vigilant track inspectors and their supervisors.

The WC Supervisor of Maintenance and the WC Manager of Maintenance were responsible for the inspection of the track at Weyauwega for compliance with FRA regulations on track safety standards. WC records indicated both were considered to be qualified track inspectors for FRA track safety standards. However, a review of their training records indicated that neither person had been recently trained in track safety standard compliance on the WC, nor had they recently received any FRA track safety standard competency testing.

PROBABLE CAUSE

The National Transportation Safety Board determines that the cause of this accident was: the switch point rail broke due to an undetected bolt hole crack that progressed from improper maintenance because Wisconsin Central management did not ensure that the two employees responsible for inspecting the track structure were properly trained.

National Transportation Safety Board
RAILROAD BRIEF OF ACCIDENT



NTSB Accident Number CHI96FR010

GENERAL INFORMATION					
Nearest City/Place WEYAUWEGA	State WI	Date (M/D/Y) 3/4/96	Time (24 hour clock) 05:50	Time Zone CENTRAL STANDARD TIME	
Type Of Accident <input type="radio"/> Collision, head-on <input type="radio"/> Highway crossing <input checked="" type="radio"/> Explosion <input type="radio"/> Employee fatality <input type="radio"/> Collision, rear-end <input type="radio"/> Railroad crossing <input type="radio"/> Locomotive derailed <input type="radio"/> Passenger fatality <input type="radio"/> Collision, side <input checked="" type="radio"/> Fire <input checked="" type="radio"/> Cars derailed <input checked="" type="radio"/> Hazardous material release <input type="radio"/> Other (see narrative)					
INJURY MATRIX					
Person Type	Fatal	Serious	Minor	None	Total
TRAIN CREW MEMBER	0	0	0	2	2
OTHER (SEE NARRATIVE)	0	0	3	3152	3155
TOTALS	0	0	3	3154	3157
DAMAGE COST INFORMATION					
Equipment \$1,159,366	Track \$261,839	Lading \$559,616	Clearing \$557,085	Other \$17,141,358	
ENVIRONMENTAL INFORMATION					
Weather <input checked="" type="radio"/> Clear <input type="radio"/> Rain <input type="radio"/> Snow <input type="radio"/> Hail <input type="radio"/> Cloudy <input type="radio"/> Fog <input type="radio"/> Sleet			Condition of light DARK	Temperature 10 F	

Track Type	Track Record Number	Number Of Tracks	Degree of curve	Grade	Percent grade
MAIN	1	3	0 deg	LEVEL	0.00%

Train Type	Train length in feet	Trailing tons
FREIGHT	5217 ft	7922 tons

EQUIPMENT INFORMATION

Car Type	Number in train	Damaged	Derailed	Destroyed
DIESEL UNIT	2	0	0	0
LOADED FREIGHT CAR	68	4	22	18
EMPTY FREIGHT CAR	13	0	12	12
Totals	83	4	34	30

METHOD OF OPERATION

Timetable Direction of Travel	Operating Railroad
EAST	WISCONSINCENTRAL LTD. (ALSO RAILWAY)

Train ID	Reported Train Speed	Authorized Train Speed	Recorded Train Speed	Number Of Front End Crew	Number Of Rear End Crew
LO22-4	49 mph	50 mph	48 mph	2	0

TRAIN INFORMATION