Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2008-66

Iowa Chicago & Eastern Railroad (ICE)
Reno, MN
July 29, 2008

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FRA FACTUAL RAILROAD ACCIDENT REPORT

FRA File # HQ-2008-66

1.Name of Railroad Operating Train #1: Iowa Chicago and Eastern RR Corp. [ICE]	1a. Alphabetic Code: ICE	1b. Railroad Accident/Incident No.: 2008197
2.Name of Railroad Operating Train #2: N/A	2a. Alphabetic Code: N/A	2b. Railroad Accident/Incident No.: N/A
3.Name of Railroad Operating Train #3: N/A	3a. Alphabetic Code: N/A	3b. Railroad Accident/Incident No.: N/A
4.Name of Railroad Responsible for Track Maintenance: Iowa Chicago and Eastern RR Corp. [ICE]	4a. Alphabetic Code: ICE	4b. Railroad Accident/Incident No.: 2008197
5. U.S. DOT_AAR Grade Crossing Identification Number:	6. Date of Accident/Incident: Month 07 | Day 29 | Year 2008	7. Time of Accident/Incident: 04:07:00 ☑ AM ☐ PM

8. Type of Accident/Indicent *(single entry in code box)*: 1. Derailment; 2. Head on collision; 3. Rear end collision; 4. Side collision; 5. Raking collision; 6. Broken Train collision; 7. Hwy-rail crossing; 8. RR grade crossing; 9. Obstruction; 10. Explosion-detonation; 11. Fire/violent rupture; 12. Other impacts; 13. Other *(describe in narrative)* — Code: 01

9. Cars Carrying HAZMAT	10. HAZMAT Cars Damaged/Derailed	11. Cars Releasing HAZMAT	12. People Evacuated	13. Division
0	8	1	0	SYSTEM

14. Nearest City/Town	15. Milepost *(to nearest tenth)*	16. State Abbr	16. State Code	17. County
RENO	142.6	N/A	MN	HOUSTON

18. Temperature (F) *(specify if minus)*	19. Visibility *(single entry)* 1. Dawn 2. Day 3.Dusk 4.Dark — Code	20. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5.Sleet 6.Snow — Code	21. Type of Track 1. Main 2. Yard 3. Siding 4. Industry — Code
69 F	4	1	1

22. Track Name/Number	23. FRA Track Class (1-9, X) — Code	24. Annual Track Density *(gross tons in millions)*	25. Time Table Direction 1. North 2. South 3. East 4. West — Code
SINGLE MAIN TRACK	2	4.50	2

OPERATING TRAIN #1

26. Type of Equipment Consist *(single entry)* 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/switching 8. Light loco(s). 9. Maint./inspect.car — A. Spec. MoW Equip. Code	27. Was Equipment Attended? 1. Yes 2. No — Code	28. Train Number/Symbol
1	1	MHUCC-27

29. Speed *(recorded speed, if available)* R - Recorded; E - Estimated: 25 MPH — Code: R

30. Trailing Tons *(gross tonnage, excluding power units)*: 11372

31. Method(s) of Operation *(enter code(s) that apply)*: a. ATCS; b. Auto train control; c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; g. Automatic block; h. Current of traffic; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; m.Special instructions; n. Other than main track; o. Positive train control; p. Other *(Specify in narrative)*

Code(s): j | N/A | N/A | N/A | N/A

31a. Remotely Controlled Locomotive? 0 = Not a remotely controlled; 1 = Remote control portable; 2 = Remote control tower; 3 = Remote control transmitter - more than one remote control transmitter: 0

32. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	DME 28629	12	yes
(2) Causing *(if mechanical cause reported)*	DME 28629	12	yes

33. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
0	0

34. Was this consist transporting passengers? (Y/N): N

35. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	3	0	0	0	0
(2) Total Derailed	0	0	0	0	0

36. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	84	0	30	0	0
(2) Total Derailed	27	0	1	0	0

37. Equipment Damage — This Consist: $863,373.00

38. Track, Signal, Way, & Structure Damage: $1,430,679.00

39. Primary Cause Code: M505

40. Contributing Cause Code: N/A

Number of Crew Members

41. Engineer/ Operators	42. Firemen	43. Conductors	44. Brakemen
1	0	1	1

Length of Time on Duty

45. Engineer/Operator: Hrs 5 Mi 37

46. Conductor: Hrs 5 Mi 37

Casualties to:	47. Railroad Employees	48. Train Passengers	49. Other
Fatal	0	0	0
Nonfatal	0	0	0

50. EOT Device? 1. Yes 2. No: 1

51. Was EOT Device Properly Armed? 1. Yes 2. No: 1

52. Caboose Occupied by Crew? 1. Yes 2. No: 2

OPERATING TRAIN #2

53. Type of Equipment Consist *(single entry)* 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/switching 8. Light loco(s). 9. Maint./inspect.car — A. Spec. MoW Equip. Code	54. Was Equipment Attended? 1. Yes 2. No — Code	55. Train Number/Symbol
N/A	N/A	N/A

56. Speed *(recorded speed, if available)* R - Recorded; E - Estimated: N/A MPH — Code: N/A

58. Method(s) of Operation *(enter code(s) that apply)*: a. ATCS; b. Auto train control; g. Automatic block; h. Current of traffic; m.Special instructions; n. Other than main track

58a. Remotely Controlled Locomotive? 0 = Not a remotely controlled; 1 = Remote control portable

57. Trailing Tons *(gross tonnage, excluding power units)* N/A

c. Auto train stop
d. Cab
e. Traffic
f. Interlocking
i. Time table/train orders
j.Track warrant control
k. Direct traffic control
l.Yard limits
o. Positive train control
p. Other *(Specify in narrative)*
Code(s) N/A N/A N/A N/A N/A

2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter N/A

59. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	N/A	N/A	N/A
(2) Causing *(if mechanical cause reported)*	N/A	N/A	N/A

60. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

61. Was this consist transporting passengers? (Y/N) N/A

62. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote	63. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Train	N/A	N/A	N/A	N/A	N/A	(1) Total in Equipment Consist	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A	(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

64. Equipment Damage This Consist N/A

65. Track, Signal, Way, & Structure Damage N/A

66. Primary Cause Code N/A

67. Contributing Cause Code N/A

Number of Crew Members

68. Engineer/ Operators	69. Firemen	70. Conductors	71. Brakemen
N/A	N/A	N/A	N/A

Length of Time on Duty

72. Engineer/Operator Hrs N/A Mi N/A

73. Conductor Hrs N/A Mi N/A

Casualties to:	74. Railroad Employees	75. Train Passengers	76. Other
Fatal	N/A	N/A	N/A
Nonfatal	N/A	N/A	N/A

77. EOT Device? 1. Yes 2. No N/A

78. Was EOT Device Properly Armed? 1. Yes 2. No N/A

79. Caboose Occupied by Crew? 1. Yes 2. No N/A

OPERATING TRAIN #3

80. Type of Equipment Consist *(single entry)*
1. Freight train
2. Passenger train
3. Commuter train
4. Work train
5. Single car
6. Cut of cars
7. Yard/switching
8. Light loco(s).
9. Maint./inspect.car
A. Spec. MoW Equip.
Code N/A

81. Was Equipment Attended? 1. Yes 2. No Code N/A

82. Train Number/Symbol N/A

83. Speed *(recorded speed, if available)* Code
R - Recorded
E - Estimated N/A MPH N/A

84. Trailing Tons *(gross tonnage, excluding power units)* N/A

85. Method(s) of Operation *(enter code(s) that apply)*
a. ATCS
b. Auto train control
c. Auto train stop
d. Cab
e. Traffic
f. Interlocking
g. Automatic block
h. Current of traffic
i. Time table/train orders
j.Track warrant control
k. Direct traffic control
l.Yard limits
m.Special instructions
n. Other than main track
o. Positive train control
p. Other *(Specify in narrative)*
Code(s) N/A N/A N/A N/A N/A

85a. Remotely Controlled Locomotive?
0 = Not a remotely controlled
1 = Remote control portable
2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter N/A

86. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded *(yes/no)*
(1) First involved *(derailed, struck, etc)*	N/A	N/A	N/A
(2) Causing *(if mechanical cause reported)*	N/A	N/A	N/A

87. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

88. Was this consist transporting passengers? (Y/N) N/A

89. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote	90. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Train	N/A	N/A	N/A	N/A	N/A	(1) Total in Equipment Consist	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A	(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

91. Equipment Damage This Consist N/A

92. Track, Signal, Way, & Structure Damage N/A

93. Primary Cause Code N/A

94. Contributing Cause Code N/A

Number of Crew Members

95. Engineer/ Operators	96. Firemen	97. Conductors	98. Brakemen
N/A	N/A	N/A	N/A

Length of Time on Duty

99. Engineer/Operator Hrs N/A Mi N/A

100. Conductor Hrs N/A Mi N/A

Casualties to:	101. Railroad Employees	102. Train	103. Other
Fatal	N/A	N/A	N/A
Nonfatal	N/A	N/A	N/A

104. EOT 1. Yes 2. No N/A

105. Was EOT Device Properly 1. Yes 2. No N/A

106. Caboose Occupied by Crew? 1. Yes 2. No N/A

Highway User Involved

107. Code N/A
A. Auto
B. Truck
C. Truck-Trailer.
D. Pick-Up Truck
E. Van
F. Bus
G. School Bus
H. Motorcycle
J. Other Motor Vehicle
K. Pedestrian
M. Other *(spec. in narrative)*

108. Vehicle Speed *(est. MPH at impact)* N/A

109. *geographical)* Code N/A
1.North 2.South 3.East 4.West

Rail Equipment Involved

111. Equipment Code N/A
1.Train *(units pulling)*
2.Train *(units pushing)*
3.Train *(standing)*
4.Car(s) *(moving)*
5.Car(s) *(standing)*
6.Light Loco(s) *(moving)*
7.Light(s) *(standing)*
8.Other *(specify in narrative)*

112. Position of Car Unit in N/A

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FRA FACTUAL RAILROAD ACCIDENT REPORT

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110. Position 1.Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing 4. Trapped	Code N/A	113. Circumstance 1. Rail Equipment Struck Highway User 2. Rail Equipment Struck by Highway User	Code N/A
114a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither	Code N/A	114b. Was there a hazardous materials release 1. Highway User 2. Rail Equipment 3. Both 4. Neither	Code N/A
114c. State here the name and quantity of the hazardous materials released, if any. N/A			

115. Type Crossing Warning 1.Gates 2.Cantilever FLS 3.Standard FLS 4.Wig Wags 5.Hwy. traffic signals 6.Audible 7.Crossbucks 8.Stop signs 9.Watchman 10.Flagged by crew 11.Other *(spec. in narr.)* 12.None								116. Signaled Crossing *(See instructions for codes)*	Code N/A	117. Whistle Ban 1. Yes 2. No 3. Unknown	Code N/A
Code(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A				

118. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach	Code N/A	119. Crossing Warning with Highway Signals 1. Yes 2. No 3. Unknown	Code N/A	120. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown	Code N/A

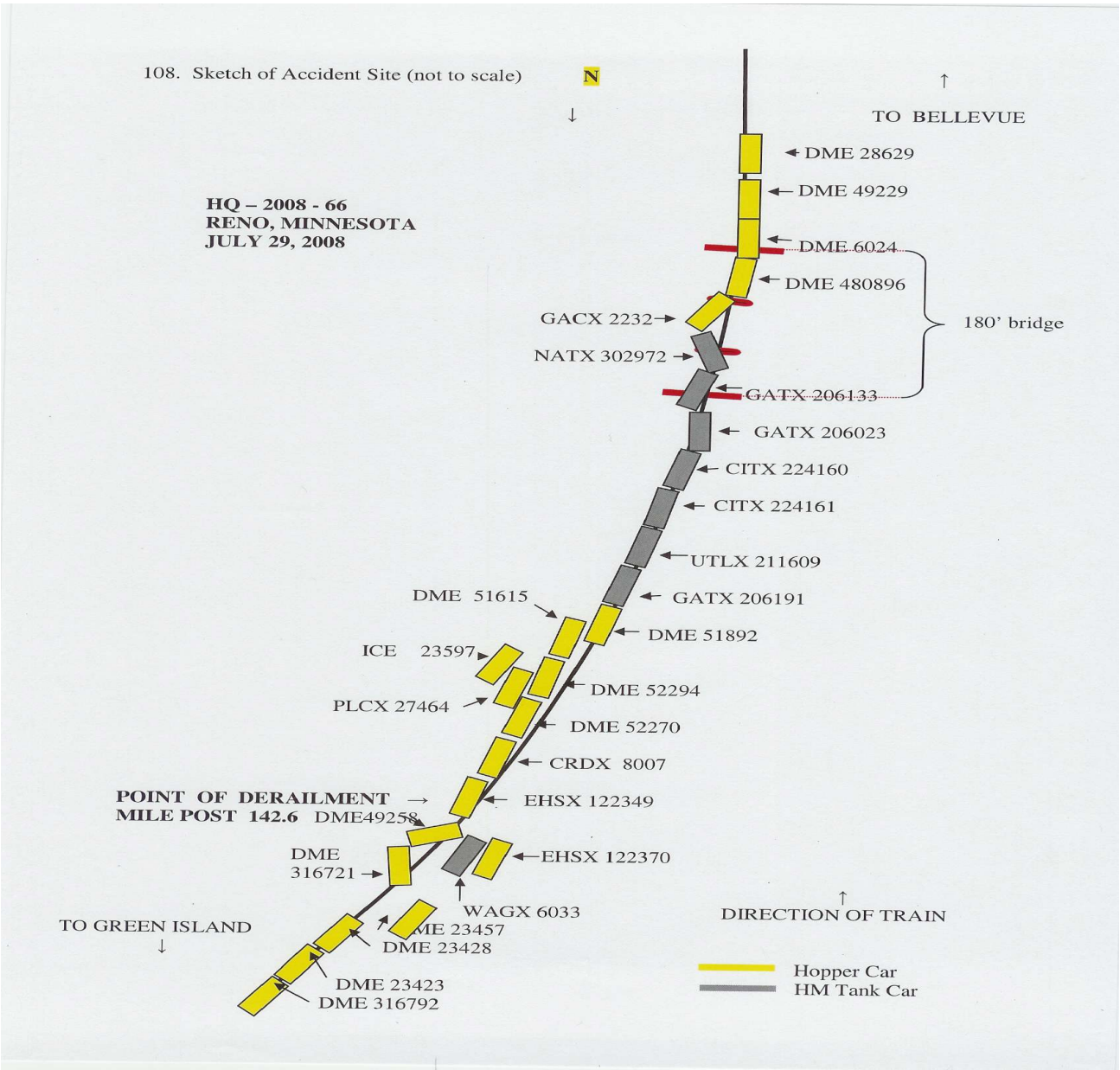
121. Age N/A	122. Driver's Gender 1. Male 2. Female	Code N/A	123. Driver Drove Behind or in Front of and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	Code N/A	124. Driver 1. Drove around or thru the Gate 2. Stopped and then Proceeded 3. Did not Stop 4. Stopped on Crossing 5. Other *(specify in narrative)*	Code N/A

125. Driver Passed Highway Vehicle 1. Yes 2. No 3. Unknown	Code N/A	126. View of Track Obscured by *(primary obstruction)* 1. Permanent Structure 2. Standing Railroad Equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicle 7. Other *(specify in narrative)* 8. Not obstructed	Code N/A

Casualties to:	Killed	Injured	127. Driver 1. Killed 2.Injured 3. Uninjured	Code N/A	128. Was Driver in the Vehicle? 1. Yes 2. No	Code N/A
129. Highway-Rail Crossing Users	N/A	N/A	130. Highway Vehicle Property Damage *(est. dollar damage)*	N/A	131. Total Number of Highway-Rail Crossing Users *(include driver)*	N/A

132. Locomotive Auxiliary Lights? 1. Yes 2. No	Code N/A	133. Locomotive Auxiliary Lights Operational? 1. Yes 2. No	Code N/A
134. Locomotive Headlight Illuminated? 1. Yes 2. No	Code N/A	135. Locomotive Audible Warning Sounded? 1. Yes 2. No	Code N/A

136. DRAW A SKETCH OF ACCIDENT AREA INCLUDING ALL TRACKS, SIGNALS, SWITCHES, STRUCTURES, OBJECTS, ETC., INVOLVED.



137. SYNOPSIS OF THE ACCIDENT

On July 29, 2008 at 4:07 a.m. CDT southbound Iowa Chicago and Eastern Railway Corporation (ICE) mixed freight train # MHUCC-27 derailed 27 cars. The incident occurred one mile south of Reno, Minnesota at the ICE Milepost 142.6 on the Marquette Subdivision single Main Track.

Rail car DME 28629, the ninth car from the head end, was the first car to derail. Tank car GATX 206133, the 15th head car, a load of Alcohol (UN1987), was breached and leaking product. The leak was contained to approximately 1,100 gallons. The source of the leak was the bottom outlet flange fractured due to striking a concrete bridge pier. There was no fire or evacuation and no injuries were reported. The Brownsville Fire Department temporarily closed Minnesota State Highway 26 which is adjacent to the derailment site.

A 180-foot open deck railroad bridge was destroyed in the accident. The bridge consisted of three 60-foot steel spans with through plate girder construction and concrete piers.

The total estimated damage was $2,294,052. Estimated equipment damage was $863,373 and estimated track and structures damage was $1,430,679.

At the time of the incident it was clear and dark. The temperature was 69 ºF.

The probable cause of the derailment was defective snubbing on the trailing, B-end, truck of rail car DME 28629.

138. NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

The three man crew of ICE freight train # MHUCC-27 consisted of a locomotive engineer, a conductor, and a brakeman. The crew went on duty at 9:30 p.m. on July 28, 2008 at Marquette, Iowa where they received their train orders and instructions. The crew was transported by taxi to Minnesota City, Minnesota to the awaiting train. Marquette is the home terminal for the three crew members. Before they went on duty all crew members received more than the required statutory off duty rest period. The engineer had 22 hours 15 minutes, the conductor had 15 hours, and the student conductor had 24 hours off duty.

ICE train # MHUCC-27 originated in Huron, South Dakota on July 27, 2008. It was scheduled to operate from Huron to the Belt Railway in Chicago, Illinois. ICE freight train # MHUCC-27 consisted of three locomotives and 114 cars (84 loads and 30 empties) of mixed freight. It was 6,746 feet long with 11,372 trailing tons. Before departing Minnesota City the engineer inspected the locomotives. The last daily inspection on the lead locomotive, ICE 6420, was performed on July 29, 2008 at 12:01 a.m. in Waseca, Minnesota.

A Class 1 Terminal Train Air Brake Test was completed by a qualified mechanical employee at Huron on July 27, 2008 at 1:01 a.m. The End-of-Train Device (EOTD) was also tested at the Huron Locomotive Facility. It functioned as intended. The engineer acknowledged that the air brake test slip was current before departure.

The method of operation was Track Warrant Control (TWC). The maximum authorized speed at the derailment site was 25 mph due to a timetable speed restriction between milepost 142.5 and milepost 142.7. DME/ICE Timetable # 1, effective 0200, May 18, 2008 was in effect. The timetable and geographic direction of the train was south. Timetable directions are used throughout this report.

The crew of ICE train # MHUCC-27 reported that the trip from the Dakota Minnesota and Eastern Railroad (DME) at Minnesota City to Reno was uneventful. The engineer took no exception to the train makeup based upon his inspection of the train list. At about milepost 347 ICE train # MHUCC-27 passed a wayside detector and no defects were noted. The axle count, as computed by the detector and matched the train list. ICE train

MHUCC-27 operated through the siding at Donehouer, Minnesota to meet a westbound Canadian Pacific (CP) freight train.

Approaching the accident area, the track is tangent for approximately one-half mile leading to the derailment site. There is a 0.22 percent descending grade beginning at mile 143.2 and a 0.15 percent ascending grade starting at milepost 142.75 entering a 6-degree right hand curve to the point of derailment (POD). The track is constructed of 115 lb Bethlehem Steelton standard carbon continuous welded rail (CWR) and hardwood crossties.

THE ACCIDENT

As ICE train # MHUCC-27 approached the POD the engineer was operating the train at a recorded speed of 25 mph in throttle position # 4 when the train experienced an undesired emergency application of the train air brake system and coasted to a stop. The engineer released the independent locomotive brake and placed the throttle in the idle position (neutral). The crew did not feel or hear anything unusual prior to the accident. The engineer radioed the dispatcher to report the emergency while the conductor and student conductor gathered their paperwork, departed the locomotive, and walked back to inspect the train. At that time the conductor shined a light toward the rear of the train and observed the derailed cars. He checked the train list and concluded it was likely that hazardous materials may be involved.

The Brownsville, Minnesota Fire Department responded to the scene at 5:47 a.m. and closed a section of Minnesota State Highway 26 to vehicular traffic. The Center for Toxicology and Environmental Health, L.L.C., also responded to the scene at 12:43 p.m. to conduct real-time air monitoring support.

ANALYSIS AND CONCLUSIONS

ANALYSIS - TOXICOLOGICAL TESTING:

The accident met the criteria prescribed in FRA Title 49 CFR Part 219 Subpart C-Post Accident Toxicological Testing. An ICE superintendent transported the train crew to Franciscan Skemp Mayo Health System Hospital in La Crosse, Wisconsin for testing under this authority.

CONCLUSION:

The test results for the three crew members were negative. Impairment of the crew was not a causal factor.

ANALYSIS - LOCOMOTIVE ENGINEER OPERATING PERFORMANCE:

The engineer of ICE train # MHUCC-27 was a certified locomotive engineer. He was in possession of a valid certification card at the time of the accident. He had been working as a locomotive engineer for the past nine years and had operated over the territory where the accident occurred on numerous occasions. The locomotive engineer said he was alert and not distracted from his duties.

The ICE Operating Department downloaded the event recorder data from the lead locomotive, ICE 6420. Analysis of the data by FRA disclosed that locomotive ICE 6420 was operating at a recorded speed of 25 mph when the train experienced an undesired emergency train air brake application. No exception was taken to the engineer's train handling procedures.

CONCLUSION:

The engineer's performance was not a causal factor.

ANALYSIS - LOCOMOTIVE SAFETY DEVICES:

The three locomotives of ICE train # MHUCC-27 were all equipped with a headlight, auxiliary lights, and an audible warning device as required by Federal regulation. The event recorder data indicated these devices were functioning as intended prior to the accident. ICE Locomotive 6420 was equipped with an operating speed indicator and event recorder. FRA's inspection of ICE 6420 revealed that the independent brake was set and the run switch was in the isolation position.

CONCLUSION:

The locomotive safety devices were in compliance with Federal Regulations.

ANALYSIS - MECHANICAL SAFETY DEVICES:

There were two FRA exceptions taken during the on-site mechanical inspection of the train. One car in the train was missing a crossover safety handrail and the End-of-Train Device (EOTD) was incapable of initiating an emergency brake application from the rear of the train. These exceptions did not contribute to the cause of the derailment.

A Canadian Pacific Railway (CP) accident investigation team conducted simulation tests and performed a tear -down inspection of the first derailed car (DME 28629). Their findings concluded that the car had tight side bearings, excessive wedge rise, and excessive component wear. According to the report these conditions would have reduced the steering and stability of the rail car trucks.

CONCLUSION:

The mechanical conditions described above were considered the probable cause of the derailment.

ANALYSIS - TRACK STRUCTURE:

The rails through the derailment area were laid on both sides in 2002. Cross ties were installed and the track re-surfaced in 2007. The last required FRA track inspection was performed by a qualified track inspector on July 24, 2008 and no defects were noted in the area of the derailment. The last track geometry survey was performed on October 12, 2007 and there were no defects noted in the area of the derailment. The last ultrasonic rail test was conducted by Herzog Services, Inc. on May 28, 2008. All rails near the POD was recovered and inspected. No defective rails were found in the area of the derailment and there were no CWR joints or rail integrity issues noted. Track geometry measurements were taken under simulated dynamic load on the existing track leading to the POD. No condemnable track geometry deviations were noted.

ICE Railroad Bridge K616.0 at milepost 142.51 was severely damaged as a result of the derailment of ICE train # MHUCC-27. The bridge consisted of three 60-foot thru plate girder spans on concrete piers and abutments. It was a single track open deck bridge over Crooked Creek. ICE structures personnel inspected the bridge on April 8, 2008 and the report indicated there were no exceptions noted. A close observation of the bridge following the derailment was not possible due to a leaking hazardous materials tank car.

CONCLUSION:

The track was in compliance with Federal Regulations and the condition of the bridge was not considered a causal factor in the derailment.

ANALYSIS - FATIGUE:

FRA uses an overall effectiveness rate of 77.5 percent as the baseline for fatigue analysis, which is considered to blood alcohol content (BAC) of 0.05. At or above this baseline, we do not consider fatigue as probable for any employee. Software sleep settings vary according to information obtained from each employee. If an employee does not provide sleep information, FRA uses the default software settings.

FRA obtained fatigue related information, including a 10-day work history, for three employees involved in this accident, the locomotive engineer, the conductor, and student conductor of ICE train # MHUCC-27.

CONCLUSION:

Crew fatigue was not a probable cause or contributing factor in the derailment.

PROBABLE CAUSE & CONTRIBUTING FACTORS

The probable cause of the derailment was defective snubbing on the trailing B-end (brake end of the rail car) truck of rail car DME 28629.