NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

RAILROAD ACCIDENT REPORTS

BRIEF FORMAT
ISSUE NUMBER 4--1982

NTSB/RAB-84/02

UNITED STATES GOVERNMENT
The publication contains briefs of selected railroad accidents occurring in U.S. Railroad operations during calendar 1981. The brief format presents basic facts, conditions, circumstances, and probable cause(s) in each instance. Additional statistical information is tabulated by types of accidents and casualties related to types of accidents, carriers involved, and causal factors.

Sequence Numbers:

<table>
<thead>
<tr>
<th>Sequence Numbers</th>
<th>83-1 through 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>79-111</td>
<td>83-9 through 11</td>
</tr>
<tr>
<td>79-327</td>
<td>83-13 through 17</td>
</tr>
<tr>
<td>81-382</td>
<td>83-19</td>
</tr>
<tr>
<td>82-311 through 313</td>
<td>85-21 through 24</td>
</tr>
<tr>
<td></td>
<td>83-26</td>
</tr>
<tr>
<td></td>
<td>83-27</td>
</tr>
</tbody>
</table>

17. Key Words: Railroad Accident; Common Carrier; Probable Cause; Improper Operations Procedure; Collision; Derailment; Impending Accident; Train Speed; Failure of Person; Failure of Component; Causal Factor

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FOREWORD

The National Transportation Safety Board is an independent Federal agency that serves as the overseer of safety in railroad, highway, pipeline, marine, and civil aviation transportation. The Safety Board was created by the Transportation Act of 1966 at which time it functioned as an autonomous agency under the Department of Transportation. In 1974, Congress enacted the Independent Safety Board Act which established the Safety Board as a totally independent agency of the Federal Government and broadened the Board's investigative role in the surface modes of transportation.

Under the Independent Safety Board Act, the Board has the authority to investigate, determine the facts, conditions, circumstances, and probable cause(s) of accidents, issue safety recommendations, conduct special studies on transportation safety, assess techniques of accident investigation, evaluate effectiveness of other government agencies with respect to transportation safety, and evaluate the adequacy of safeguards and procedures for transporting hazardous materials.

In accordance with the provisions of the Independent Safety Board Act of 1974, the NTSB has determined the probable cause of the accidents reported herein.

This publication contains the reports of 26 U.S. railroad accidents arranged in alphabetical order by railroad company name and tabulations of selected accident information including (1) types of accidents by carrier, (2) types of accidents by state, (3) casualties by types of accident and classes of persons, and (4) causal factors arranged by categories, types and numbers of accidents. These brief format reports are published quarterly on a calendar year basis and mostly include summaries of field investigations conducted by the Board's former eight railroad field offices and the District of Columbia. (See figure 1.) As of January 8, 1982 there were seven railroad field offices; as of April 2, 1982 there are four railroad field offices. The briefs also contain data extracted from reports of investigations of major accidents which may be distinguished from the field investigations by the reference to the published National Transportation Safety Board major accident report under the probable cause section.

Care should be taken in interpreting the data contained in the five tables as they reflect only a three-month period and thus do not reflect an accurate long-term statistical distribution. At the end of each calendar year, an annual review of railroad accident data is published which contains tables and graphs compiled from that year's accident data.

These Briefs are summaries of reports of the National Transportation Safety Board and are thereby subject to the limitation of 49 USC 1903(c):

No part of any report or reports of the Board, relating to any accident or the investigation thereof, shall be admitted as evidence or used in any suit or action for damages growing out of any matter mentioned in such report or reports.
For those readers who wish more detailed information, the original factual reports for both field and major accidents are on file in the Washington, D.C., office of the National Transportation Safety Board and may be examined. These reports will be reproduced for a fee covering reproduction cost and postage. Orders for material also are subject to a user charge by the Board for special services, and such charge will be included in the bill.

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National Transportation Safety Board
Public Inquiries Section
Washington, D.C. 20594
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EXPLANATORY NOTES

Scope

The accidents included herein are those occurrences incidental to railroad operations which fall within the scope of Section 304 of the Independent Safety Board Act of 1974. As provided in that Section, the Board investigates and determines facts, conditions, circumstances, and probable cause of any railroad accident in which there is a fatality or substantial property damage, or which involves a passenger train. The following definitions, as set forth in Part 840 of the National Transportation Safety Board's regulations (49 CFR 840), effective April 1, 1978, and as amended August 14, 1980, are applicable.

Railroad - 840.2(a)

"Railroad" means any system of surface transportation of persons or property over rails. It includes, but is not limited to, line-haul freight and passenger-carrying railroads, and rapid transit, commuter, scenic, subway and elevated railways.

Accident - 840.2(b)

"Accident" means any collision, derailment, or explosion involving railroad trains, locomotives, and cars; or any other loss-causing event involving the operation of such railroad equipment that results in a fatality or the emergency evacuation of persons.

Joint Operations - 840.2(c)

"Joint Operations" means rail operations conducted on a track used jointly or in common by two or more railroads subject to this part, or operation of a train, locomotive, or car by one railroad over the track of another railroad.

Fatality 840.2(d)

"Fatality" means the death of a person either at the time an accident occurs or within 24 hours thereafter.

Substantial Damage - 840.3

"Substantial Damage" in nonfatal railroad accidents is defined as follows:

1. Damage of $150,000 or more to railroad and nonrailroad property; or
2. All accidents involving passenger trains.
Causes and Other Factors

In determining probable cause(s) of an accident, all facts, conditions, and circumstances are considered. The object is to ascertain those cause-effect relationships in the accident sequence about which action may be taken to prevent recurrence. Accordingly, for statistical purposes, where two or more causes or contributing factors exist in an accident, each is recorded with no attempt to establish a primary cause or factor. Therefore, in the causal factor tables, the figures shown may exceed the total number of accidents.
<table>
<thead>
<tr>
<th>REPORTING RAILROAD</th>
<th>COLLISION</th>
<th>DERAILMENT</th>
<th>EMPLOYEE FATALITY</th>
<th>PERSONAL FATALITY</th>
<th>GRADE CROSSING</th>
<th>TOTAL</th>
<th>HAZ. MAT. (1) INVOLVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMTRAK</td>
<td>2</td>
<td>10</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>ATCHISON TOPSHAM AND SANTA FE RY CO.</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>BURLINGTON NORTHERN INC.</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>KANSAS CITY SOUTHERN RY CO.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MISSOURI PACIFIC RR CO.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NEW YORK CITY TRANSIT AUTHORITY</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>NORFOLK AND WESTERN RY CO.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SEABOARD COAST LINE RR</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SOUTHERN PACIFIC TRASP. CO.</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>UNION PACIFIC RR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BALTIMORE &amp; OHIO RR CO.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>LOUISVILLE &amp; NASHVILLE RR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

(1) NOT INCLUDED IN TOTAL RAILROAD ACCIDENTS/INCIDENTS INVESTIGATED
### Table 2: Accidents by State and Type

(Figures below represent a 3 month period)

<table>
<thead>
<tr>
<th>State</th>
<th>Collision</th>
<th>Derailment</th>
<th>Employee Fatality</th>
<th>Personal Fatality</th>
<th>Grade Crossing</th>
<th>Total Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>California</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Colorado</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Georgia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Illinois</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Kansas</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>Louisiana</td>
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<td>0</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Nebraska</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>New Jersey</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>New York</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>North Carolina</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>North Dakota</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Texas</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>West Virginia</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>10</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

(1) Not included in total railroad accidents/incidents investigated
# TABLE 3

CASUALTIES BY CLASS OF PERSON AND ACCIDENT TYPE

(Figures below represent a 3 month period)

<table>
<thead>
<tr>
<th></th>
<th>Collision</th>
<th>Derailment</th>
<th>Personal Casualty</th>
<th>Grade Crossing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railroad Employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatalities</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Injuries</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Passengers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatalities</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Injuries</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>General Public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatalities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Injuries</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: 'General Public' consists of all persons who are neither railroad employees nor passengers, including but not limited to persons on official business on the railroad, emergency forces, and Members of the Public not on railroad property.
<table>
<thead>
<tr>
<th>COMPONENT FAILURES:</th>
<th>COLLISION</th>
<th>DERAILMENT</th>
<th>EMPLOYEE FATALITY</th>
<th>PERSONAL FATALITY</th>
<th>GRADE CROSSING</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAILURE OF TRACK GEOMETRY DUE TO NORMAL DETERIORATION/WEAR</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FAILURE OF TRUCKS DUE TO NORMAL DETERIORATION/WEAR</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FAILURE OF LOCOMOTIVE CONTROLS AND DRIVE DUE TO UNUSUAL DETERIORITION/WEAR</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>BROKEN RAIL</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>BROKEN TRUCKS</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>BROKEN WHEELS</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>OVER HEATED WHEELS</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>IMPROPER INSTALLATION OF LOCOMOTIVE CONTROLS AND DRIVE</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>IMPROPER INSPECTION OF RAIL</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>IMPROPER INSPECTION OF LOCOMOTIVE CONTROLS AND DRIVE</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>DAMAGE TO TRACK GEOMETRY FROM EXCESSIVE bufF FORCES</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>COMPONENT FAILURE (UNSPECIFIED)</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL (COMPONENT FAILURES)</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>16</td>
</tr>
</tbody>
</table>
TABLE: 4
CAUSAL FACTORS BY ACCIDENT TYPE
(FIGURES BELOW REPRESENT A 3 MONTH PERIOD)

<table>
<thead>
<tr>
<th></th>
<th>Collision</th>
<th>Derailment</th>
<th>Employee Fatality</th>
<th>Personal Fatality</th>
<th>Grade Crossing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROCEDURAL FAILURES:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to perform procedure prescribed by RR operating rule</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Failure to perform procedure prescribed by RR timetable special instruction</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Failure to perform procedure prescribed by RR train crew safety rule</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Failure to perform procedure prescribed by RR maintenance of way dept. employee safety rule</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Failure to properly perform procedure prescribed by RR air brake rule</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Procedural failure (unspecified)</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL (PROCEDURAL FAILURE)</strong></td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>

<p>| | | | | | | |
|                  |            |            |                   |                   |                |       |
| <strong>HUMAN FAILURES:</strong> |           |            |                   |                   |                |       |
| Failure of personnel to detect other train | 0         | 0          | 1                 | 0                 | 0              | 1     |
| Failure of personnel to recognize improper operating procedure as hazardous | 0         | 0          | 2                 | 0                 | 0              | 2     |
| Individual accepted risks beyond skill level: unknown to management | 0         | 0          | 1                 | 0                 | 0              | 1     |
| Improper train handling on undulating grade | 0         | 1          | 0                 | 0                 | 0              | 1     |</p>
<table>
<thead>
<tr>
<th></th>
<th>Collision</th>
<th>Derailment</th>
<th>Employee Fatality</th>
<th>Personal Fatality</th>
<th>Grade Crossing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL DISABILITY</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FATIGUE</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>INATTENTIVENESS TO DUTIES</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>DISTRACTION FROM OTHER EVENTS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>LACK OF INSTRUCTION/SUPERVISION</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FAILURE OF PERSON TO DETECT APPROACHING TRAIN</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FAILURE OF PERSON TO VACATE POSITION ON TRACK STRUCTURE</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FAILURE OF PERSON TO RECOGNIZE UNAUTHORIZED POSITION ON CAR AS HAZARDOUS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FAILURE TO STOP AT PROTECTED GRADE CROSSING</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>HUMAN FAILURE (UNSPECIFIED)</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>5</td>
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<tr>
<td>TOTAL (NON-RAILROAD ACTIVITIES)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Track and Structure Defects</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Equipment Failures</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
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<tr>
<td>Operating Practices</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
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<td>5</td>
</tr>
<tr>
<td>Other (2)</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>7</td>
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<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td>10</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

(1) Not included in total railroad accidents/incidents investigated

(2) "Other" includes human failure, damage from natural forces, vandalism, sabotage, system design inadequacies, failure of radio and radio components, and failure of cargo and cargo tie-down and/or blocking
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #NYC831002

REPORTER: Amtrak

LOCATION: New Jersey

TIME: 0010 EST

DATE: 12/03/82

WEATHER: FOG

VISIBILITY: DARK/1000 FT

TRAIN: Amtrak

RAILROAD: Passenger Commuter

CLASS: WEST

DIRECTION: EN ROUTE

OPERATING PHASE: MAIN 004

--- ACCIDENT DESCRIPTION ---

Passenger fell from train 1, resulting in fatality.
Speed of train 1 was 640 mph; engineer was not aware of impending accident.

--- PROBABLE CAUSES ---

1. Human failure - walked onto vestibule platform of moving train.
2. Failure of person to recognize unauthorized position on car at hazardous.

--- CASUALTIES ---

FATALITIES: 1
INJURIES: 0

--- PROPERTY LOSSES ---

None

--- PROBABLE CAUSES OF CASUALTIES ---

1. Fell from train.
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #DEN82FR033

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

--- LOCATION ---
NEEDLES, CALIFORNIA

--- TIME ---
0857 PST

--- DATE ---
09/19/82

--- WEATHER ---
CLEAR

--- VISIBILITY ---
DAY/UNKNOWN

--- RAILROAD ---
1 ATCHISON TOPEKA AND SANTA FE RY CO.
2 ATCHISON TOPEKA AND SANTA FE RY CO.

--- CLASS ---
FREIGHT
FREIGHT

--- DIRECTION ---
EAST
EAST

--- OPERATING PHASE ---
IN ROUTE
UNATTENDED/STORAGE

--- TRACK/NO ---
MAIN
MAIN

ACCIDENT DESCRIPTION

TRAIN 1 STRUCK REAR OF TRAIN 2, RESULTING IN DERAILED LOCO, RESULTING IN DERAILED CAR.
SPEED OF TRAIN 1 WAS 038 MPH; ENGINEER WAS AWARE OF IMPENDING ACCIDENT; BRAKES WERE APPLIED; HORN WAS SOUNDED. TRAIN 2 WAS STOPPED. VISIBILITY WAS AFFECTED BY TRACK ALIGNMENT.

PROBABLE CAUSES

1. RECENT TRAFFIC - FAILURE OF ENGINEER TO STOP BEFORE PASSING SIGNAL.

OTHER FACTORS

1. LACK OF EXPERIENCE IN PERFORMING NECESSARY TRAIN OPERATION PROCEDURE
2. LACK OF TRAINING IN PERFORMING NECESSARY TRAIN OPERATION PROCEDURE

CASUALTIES

NONE

PROPERTY LOSSES

<table>
<thead>
<tr>
<th>RAILROAD</th>
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</tr>
</thead>
<tbody>
<tr>
<td>$ 839,000</td>
<td>$ 0</td>
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<td></td>
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<tr>
<td>---------------------------------------------------------------------</td>
<td></td>
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<tr>
<td>LOCATION: ESSEX, CALIFORNIA</td>
<td></td>
</tr>
<tr>
<td>TIME: 0330 PDT</td>
<td></td>
</tr>
<tr>
<td>DATE: 10/03/82</td>
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<tr>
<td>WEATHER: CLEAR</td>
<td></td>
</tr>
<tr>
<td>VISIBILITY: PARK/UNKNOWN</td>
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<tr>
<td>TRAIN 1: ATCHISON TOPEKA AND SANTA FE RY CO.</td>
<td></td>
</tr>
<tr>
<td>CLASS: FREIGHT</td>
<td></td>
</tr>
<tr>
<td>DIRECTION: EAST</td>
<td></td>
</tr>
<tr>
<td>OPERATING PHASE: EN ROUTE</td>
<td></td>
</tr>
<tr>
<td>TRACK/NO: MAIN</td>
<td></td>
</tr>
<tr>
<td>TRAIN 2: ATCHISON TOPEKA AND SANTA FE RY CO.</td>
<td></td>
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<tr>
<td>CLASS: FREIGHT</td>
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<td>DIRECTION: EAST</td>
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<td>OPERATING PHASE: EN ROUTE</td>
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<tr>
<td>TRACK/NO: MAIN</td>
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<table>
<thead>
<tr>
<th>ACCIDENT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAIN 1 STRUCK REAR OF TRAIN 2, RESULTING IN DERAILED LOCO. RESULTING IN DERAILED CARE.</td>
</tr>
<tr>
<td>SPEED OF TRAIN 1 WAS 030 MPH. ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT. HORN WAS SOUNDED. SPEED OF TRAIN 2 WAS 005 MPH. ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>PROBABLE CAUSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HUMAN FAILURE - DID NOT COMPLY WITH RESTRICTED SPEED SIGNAL</td>
</tr>
<tr>
<td>2. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE #250</td>
</tr>
<tr>
<td>3. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE #310</td>
</tr>
<tr>
<td>4. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 880.28</td>
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<table>
<thead>
<tr>
<th>OTHER FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. FATIGUE</td>
</tr>
<tr>
<td>2. INATTENTIVENESS TO DUTIES</td>
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</tbody>
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<table>
<thead>
<tr>
<th>CASUALTIES</th>
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<tbody>
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<table>
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<tr>
<th>PROPERTY LOSSES</th>
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<td>RAILROAD</td>
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<tr>
<td>$661,800</td>
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<tr>
<td>NON-RAILROAD</td>
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<td>$0.00</td>
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REPORTED BY: ATCHISON, TOPEKA AND SANTA FE RY. CO.

LOCATION: COLORADO SPRINGS, COLORADO

TIME: 17:15 NLT
DATE: 19/07/02
WEATHER: CLEAR
VISIBILITY: DARK/UNKNOWN

TRAIN: 1
RAILROAD: ATCHISON TOPEKA AND SANTA FE RY. CO.
CLASS: FREIGHT
DIRECTION: SOUTH
OPERATING PHASE: EN ROUTE
TRACK/ROAD: MAIN 008

+++++++++++++++++++++++ ACCIDENT DESCRIPTION ++++++++++++++++++++++++ 

TRAIN 1 Derailed, resulting in derailed cars. Derailed equipment struck car of cars, resulting in substantial ex property damage.

Speed of train 1 was 025 knots Engineer was not aware of impending accident.

+++++++++++++++++++++++ PROBABLE CAUSES ++++++++++++++++++++++++ 

1. PROCEDURAL FAILURE - WHEEL LIFT DUE TO HIGH L/T FROM HEAVY DYNAMIC BRAKING

+++++++++++++++++++++++ CASUALTIES ++++++++++++++++++++++++ 

NAME: 

+++++++++++++++++++++++ PROPERTY LOSSES ++++++++++++++++++++++++ 

RAILROAD: $424,000
NON-RAILROAD: $0
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 83-0013

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

------------------ LOCATION ------------------
LOS ANGELES, CALIFORNIA

---------- TIME ---------- DATE ---------- WEATHER ---------- VISIBILITY ----------
0812 PST  11/29/82  CLOUDY  DAY/8500 FT

TRAIN  RAILROAD  CLASS  DIRECTION  OPERATING PHASE  TRACK/NO
1  ATCHISON TOPEKA AND SANTA FE RY CO.  CUT OF CARS  EAST  MOVEMENT IN YARD  YARD  004

+++++++++++++++++++++++++++++ ACCIDENT DESCRIPTION ++++++++++++++++++++++++++++++

TRAIN 1 STRUCK EMPLOYEE, RESULTING IN FATALITY.
SPEED OF TRAIN 1 IS UNKNOWN; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT; BRAKES
WERE APPLIED.

+++++++++++++++++++++++++++++ PROBABLE CAUSES ++++++++++++++++++++++++++++++

1. PROCEDURAL FAILURE - GAVE KICK SIGNAL THEN STEPPED BETWEEN CARS
2. INDIVIDUAL ACCEPTED RISKS BEYOND SKILL LEVEL; UNKNOWN TO
MANAGEMENT
3. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR TRAIN CREW
SAFETY RULE #68

----------------- CASUALTIES -----------------

FATALITIES INJURIES

EMPLOYEES ON DUTY
1  0

----------------- PROBABLE CAUSES OF CASUALTIES -----------------

1. STRUCK BY TRAIN
NATIONAL TRANSPORTATION SAFETY BOARD  
WASHINGTON, D.C. 20594  

BRIEF OF RAILROAD ACCIDENT #DEN83FR007  

REPORTED BY:  
ATCHISON TOPEKA AND SANTA FE RY CO.  

<table>
<thead>
<tr>
<th>LOCATION</th>
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<th>VISIBILITY</th>
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<tbody>
<tr>
<td>CASTLE ROCK, COLORADO</td>
<td>0300 MST</td>
<td>12/13/82</td>
<td>CLEAR</td>
<td>DARK BUT LIGHTER/4600 FT</td>
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<table>
<thead>
<tr>
<th>TRAIN</th>
<th>RAILROAD</th>
<th>CLASS</th>
<th>DIRECTION</th>
<th>OPERATING PHASE</th>
<th>TRACK/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ATCHISON TOPEKA AND SANTA FE RY CO.</td>
<td>FREIGHT UNIT TRAIN</td>
<td>SOUTH</td>
<td>EN ROUTE</td>
<td>N1N 001</td>
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</table>

ACCIDENT DESCRIPTION  
TRAIN 1 DERAILED, RESULTING IN DERAILED CARS.  
SPEED OF TRAIN 1 WAS 020 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

PROBABLE CAUSES  
1. FAILURE OF DIESEL ELECTRIC SYSTEM - LOCO LOST POWER IN CURVE, WHEEL DROPPED IN GAGE

CASUALTIES  
NONE

PROPERTY LOSSES  

<table>
<thead>
<tr>
<th>RAILROAD</th>
<th>NON-RAILROAD</th>
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</thead>
<tbody>
<tr>
<td>$220,000</td>
<td>$0</td>
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</table>
REPORTED BY:
Baltimore & Ohio RR Co.

---------------- LOCATION ----------------
ELLENBOGO, WEST VIRGINIA

---------------- TIME ----------------
1640 EST

---------------- DATE ----------------
12/26/82

---------------- WEATHER ----------------
SNOW

---------------- VISIBILITY ----------------
DAYTIME: FF

TRAIN
1 Baltimore & Ohio RR Co.

---------------- CLASS ----------------
FREIGHT

---------------- DIRECTION ----------------
WEST

---------------- OPERATING PHASE ----------------
EN ROUTE

---------------- TRACK/NO ----------------
MAIN: 001

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ ACCIDENT DESCRIPTION: ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ TRAIN 1 Derailed, resulting in substantial or property damage.
SPEED OF TRAIN 1 WAS 035 MPH. ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT. VISIBILITY WAS AFFECTED BY TRACK ALIGNMENT.

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ PROBABLE CAUSES: ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ 1. BROKEN TRACK CENTER PLATE LINER
2. FAILURE OF TRACK ALIGNMENT DUE TO NORMAL DETERIORATION/WEAR

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ CASUALTIES: ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ NONE

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ OTHER FACTORS: ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ 1. FAILURE OF TRACK CENTER PLATE LINER DUE TO NORMAL DETERIORATION/WEAR

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ PROPERTY LOSSES: ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++ RAILROAD: $0
NON-RAILROAD: 0
**BRIEF OF RAILROAD ACCIDENT #98251003**

**REPORTED BY:**  
BURLINGTON NORTHERN INC.

**LOCATION:** UPTON, WYOMING

**TIME:** 1420 HDT  
**DATE:** 10/13/82  
**WEATHER:** CLEAR  
**VISIBILITY:** DAY/6000 FT

**TRAIN:**  
BURLINGTON NORTHERN INC.

**RAILROAD:** FREIGHT UNIT TRAIN  
**CLASS:** WEST  
**DIRECTION:** EN ROUTE

**OPERATING PHASE:** MAIN  
**Trace/No:** 001

--------------------
**ACCIDENT DESCRIPTION**

TRAIN 1 STRUCK EMPLOYEE, RESULTING IN FATALITY.
SPEED OF TRAIN 1 WAS 046 MPH. ENGINEER WAS AWARE OF IMPENDING ACCIDENT. BRAKES WERE APPLIED.

--------------------
**PROBABLE CAUSES**

1. HUMAN FAILURE - WORKING ON SIGNAL WHILE ANOTHER TRAIN WAS PASSING
2. FAILURE OF PERSONNEL TO RECOGNIZE INAPPROPRIATE OPERATING PROCEDURE AS HAZARDOUS DUE TO DISTRACTION BY OTHER EVENTS

**OTHER FACTORS**

1. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR MAINTENANCE OF WAY DEPT., EMPLOYEE SAFETY RULE 940
2. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR MAINTENANCE OF WAY DEPT., EMPLOYEE SAFETY RULE 330C
3. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR MAINTENANCE OF WAY DEPT., EMPLOYEE SAFETY RULE 940Z

--------------------
**CASUALTIES**

<table>
<thead>
<tr>
<th>FATALITIES</th>
<th>INJURIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
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</tbody>
</table>

**PROPERTY LOSSES:** NONE

**PROBABLE CAUSES OF CASUALTIES**

1. STRUCK BY TRAIN
REPORTED BY: BURLINGTON NORTHERN INC.

------------------- LOCATION -------------------

CICERO, ILLINOIS

---- TIME ---- DATE ---- WEATHER ---- VISIBILITY ----

1721 CST  11/10/82  CLEAR  DARK/4440 FT

TRAIN --------- RAILROAD --------- CLASS --------- DIRECTION --------- OPERATING PHASE --------- TRACK/NO ---------

1 BURLINGTON NORTHERN INC.  PASSENGER  EAST  EN ROUTE  MAIN  003

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

ACCIDENT DESCRIPTION

TRAIN 1 STRUCK EMPLOYEE, RESULTING IN FATALITY.
SPEED OF TRAIN 1 WAS 060 MPH; ENGINEER WAS AWARE OF IMPENDING ACCIDENT; BRAKES WERE APPLIED. VISIBILITY WAS AFFECTED BY TRACK ALIGNMENT.

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

PROBABLE CAUSES --------- OTHER FACTORS ---------

1. FAILURE OF PERSON TO VACATE POSITION ON TRACK STRUCTURE DUE TO LACK OF INSTRUCTION/SUPERVISION
2. FAILURE OF PERSONNEL TO DETECT OTHER TRAIN

--- PROBABLY CAUSES OF CASUALTIES ---

1. STRUCK BY TRAIN

--- CASUALTIES ---

FATALITIES  INJURIES

1  0

--- PROPERTY LOSSES ---

NONE
REPORTED BY: BURLINGTON NORTHERN INC.

LOCATION: PAOLA, KANSAS

TIME: 1700 CST  DATE: 12/12/82  WEATHER: CLEAR  VISIBILITY: DAY OR DUSK/4000 FT

TRAIN: BURLINGTON NORTHERN INC.

CLASS: FREIGHT  DIRECTION: NORTH  OPERATING PHASE: EN ROUTE  TRACK/NO: MAIN 001

ACCIDENT DESCRIPTION: TRAIN 1 DERAILED, RESULTING IN DERAILED CARS, RESULTING IN RELEASE OF TOXIC AGENTS. SPEED OF TRAIN 1 WAS 855 MPH; ENGINEER WAS NOT AWARE OF IMPELLING ACCIDENT.

PROBABLE CAUSES:

1. BROKEN TRUCK BOLSTER

CASUALTIES: NONE

PROPERTY LOSSES:

<table>
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<tr>
<th>RAILROAD</th>
<th>NON-RAILROAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>$503,000</td>
<td>$0</td>
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</table>

-17-
**NATIONAL TRANSPORTATION SAFETY BOARD**  
**WASHINGTON, D.C. 20594**  

**REPORTED BY:**  
CONSORTIUM RAIL CORP.  

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TIME</th>
<th>DATE</th>
<th>WEATHER</th>
<th>VISIBILITY</th>
<th>DAYS</th>
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<tbody>
<tr>
<td>NEW YORK, NEW YORK</td>
<td>0749 EST</td>
<td>04/20/79</td>
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<th>CLASS</th>
<th>DIRECTION</th>
<th>OPERATING PHASE</th>
<th>TRACK/NO</th>
</tr>
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<tbody>
<tr>
<td>CONSOLIDATED RAIL CORP.</td>
<td>PASSENGER COMMUTER</td>
<td>WEST</td>
<td>EX ROUTE</td>
<td>MAIN 003</td>
<td></td>
</tr>
</tbody>
</table>


**********ACCIDENT DESCRIPTION**********

EQUIPMENT COMPONENT FELL FROM TRAIN 12 TRAIN 1 ROOF ON TOP OF EQUIPMENT COMPONENT, RESULTING IN DERAILLED CARS. TRAIN 1 WAS STOPPED; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.


**********PROBABLE CAUSES**********

1. FAILURE OF 3RD RAIL COLLECTOR SHOE DUE TO FORCES OVER DESIGN LIMITS

**********CASUALTIES**********

NONE

**********PROPERTY LOSSES**********

NONE
REPORTED BY: CONSOLIDATED RAIL CORP.

LOCATION: MCCALLS FERRY, PENNSYLVANIA

--TIME--  0730 EBD  09/15/82  CLOUDY  DAY/0500 FT

TRAIN  CLASS  DIRECTION  OPERATING PHASE  TRACK NO.
1  CONSOLIDATED RAIL CORP.  FREIGHT  WEST  EN ROUTE  MAIN 002
2  CONSOLIDATED RAIL CORP.  FREIGHT  WEST  EN ROUTE  MAIN 002

ACCIDENT DESCRIPTION
TRAIN 1 STRUCK REAR OF STANDING TRAIN 2, RESULTING IN DERAILED LOCO, RESULTING IN DERAILED CARS, RESULTING IN INJURY, RESULTING IN MINOR INJURIES.
SPEED OF TRAIN 1 WAS 010 MPH, ENGINEER WAS AWARE OF IMPENDING ACCIDENT, TRAIN 2 WAS STOPPED, ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT, VISIBILITY WAS AFFECTED BY TRACK ALIGNMENT.

PROBABLE CAUSES
1. PROCEDURAL FAILURE - HEAD END CREW DID NOT STOP AT STOP STAY SIGNAL
2. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 8292
3. FAILURE OF PERSONNEL TO DETECT SIGNAL DUE TO INATTENTIVENESS TO DUTIES

CASUALTIES
FATALITIES  INJURIES
EMPLOYEES ON DUTY  0  1

PROPERTY LOSSES
RAILROAD  $ 115,000  NON-RAILROAD  $  0

PROBABLE CAUSES OF CASUALTIES
1. THROWN FROM SEAT/POSITION IN COLLISION/DERAILMENT
BRIEF OF RAILROAD ACCIDENT #FT83FR201

REPORTED BY:
KANSAS CITY SOUTHERN RY CO.

-----------------LOCATION-----------------  ---TIME---  ---DATE---  WEATHER  ---VISIBILITY---
DOSSIER CITY, LOUISIANA  0345 CDT  10/26/82  CLOUDY  DARK/0300 FT

TRAIN  ------------------RAILROAD-----------------  ---CLASS---  DIRECTION  ---OPERATING PHASE---  ---TRACK/NO---
1  KANSAS CITY SOUTHERN RY CO.  LOCAL FREIGHT  SOUTH  EN ROUTE  SIDING  002

**************************************************************************
ACCIDENT DESCRIPTION **************************************************************************

TRAIN 1 DERAILED, RESULTING IN DERAILED CARS. DERAILED EQUIPMENT STRUCK BUILDING NOT ON RR
PROPERTY, RESULTING IN SUBSTANTIAL NON-RAILROAD DAMAGE.
SPEED OF TRAIN 1 WAS 010 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT; BRAKES
WERE APPLIED.

**************************************************************************

----------------------------PREREABLE CAUSES----------------------------

1. PROCEDURAL FAILURE - EXCEEDED SPEED THRU TURNOUT AND APPLIED
   BRAKES
2. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR TIMETABLE
   SPECIAL INSTRUCTION #RNTT

----------------------------CASUALTIES----------------------------

NONE

----------------------------PROPERTY LOSSES----------------------------

<table>
<thead>
<tr>
<th>RAILROAD</th>
<th>NON-RAILROAD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 5,777,000</td>
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<tr>
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<td>$ 10,000</td>
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NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #FTM53FR005

REPORTED BY:
LOUISVILLE & NASHVILLE RR

----------------- LOCATION -----------------  ---TIME---  ---DATE---  ---WEATHER---  ---VISIBILITY---
ELLIJAY, GEORGIA  0300 EST  12/12/82  SLEET  DARK/0500 FT

TRAIN  ----------------- RAILROAD -----------------  ---CLASS---  ---DIRECTION---  ---OPERATING PHASE---  ---TRACK/NO---
1  LOUISVILLE & NASHVILLE RR  FREIGHT  SOUTH  SETOUT/PICKUP NOT IN YARD  BRANCH  001

++++++++++++++++++++++++++++++++++++ ACCIDENT DESCRIPTION +++++++++++++++++++++++++++++++++++++

TRAIN 1 STRUCK EMPLOYEE, RESULTING IN CASUALTY.
TRAIN 1 WAS STOPPED; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT. VISIBILITY WAS
AFFECTED BY TRACK ALIGNMENT.

++++++++++++++++++++++++++++++++++++ PROBABLE CAUSES +++++++++++++++++++++++++++++++++++++

1. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR AIR
   BRAKE RULE #20-4.
2. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR AIR
   BRAKE RULE #P041.
3. FAILURE OF PERSONNEL TO RECOGNIZE IMPROPER OPERATING PROCEDURE
   AS HAZARDOUS.

++++++++++++++++++++++++++++++++++++ CASUALTIES +++++++++++++++++++++++++++++++++++++

FATALITIES  INJURIES

EMPLOYEES ON DUTY  1  0

++++++++++++++++++++++++++++++++++++ PROBABLE CAUSES OF CASUALTIES +++++++++++++++++++++++++++++++++++++

1. STRUCK BY TRAIN
REPORTED BY: MISSOURI PACIFIC RR CO.

--- LOCATION ---
POSSUM GRAPE, ARKANSAS

--- TIME --- DATE --- WEATHER --- VISIBILITY ---
0415 CST 10/03/82 CLOUDY DARK/UNKNOWN

--- RAILROAD --- CLASS --- DIRECTION --- OPERATING PHASE --- TRACK/NO ---
1 MISSOURI PACIFIC RR CO. FREIGHT SOUTH EN ROUTE MAIN 001
2 MISSOURI PACIFIC RR CO. FREIGHT NORTH EN ROUTE MAIN 001

++++++++++++++++++++++++++ ACCIDENT DESCRIPTION ++++++++++++++++++++++++++++++
TRAIN 1 STRUCK TRAIN 2, RESULTING IN DERAILMENT. RUPTURE OF LOCOMOTIVE FUEL TANK, INJURY. DERAILED LOCOMOTIVE CAUGHT ON FIRE, RESULTING IN FATALITIES. SPEED OF TRAIN 1 WAS 045 MPH; BRAKES WERE APPLIED. SPEED OF TRAIN 2 WAS 850 MPH; ENGINEER WAS AWARE OF IMPENDING ACCIDENT. VISIBILITY WAS AFFECTED BY TRACK ALIGNMENT.

++++++++++++++++++++++++++ PROBABLE CAUSES ++++++++++++++++++++++++++++++
1. PROCEDURAL FAILURE - FOR PROBABLE CAUSE SEE NTSB RR-83-06

++++++++++++++++++++++++++ CASUALTIES ++++++++++++++++++++++++++++++

FATALITIES: 0
INJURIES: 2
EMPLOYEES ON DUTY: 2

++++++++++++++++++++++++++ PROPERTY LOSSES ++++++++++++++++++++++++++++++

railroad: $ 1,047,880
non-railroad: $ 0

++++++++++++++++++++++++++ PROBABLE CAUSES OF CASUALTIES ++++++++++++++++++++++++++++++
1. FIRE
2. STRIKING INJURIOUS ENVIRONMENT
REPORTED BY: MISSOURI PACIFIC RR CO.

LOCATION: PANA, ILLINOIS

TIME: 1435 CST
DATE: 12/07/82
WEATHER: CLOUDY
VISIBILITY: DAY/5000 FT

TRAIN: MISSOURI PACIFIC RR CO.
CLASS: FREIGHT
DIrection: SOUTH
OPERATING PHASE: EN ROUTE
TRACK/NO: RAIL 001

******************************************************************************

ACCIDENT DESCRIPTION

TRAIN 1 STRUCK TRUCK RESULTING IN DERAILMENT.
SPEED OF TRAIN 1 WAS 031 MPH. ENGINEER WAS AWARE OF IMPELLING ACCIDENT; BRAKES WERE APPLIED.

******************************************************************************

PROBABLE CAUSES

1. FAILURE OF MOTORIST TO STOP AT PROTECTED GRADE CROSSING

CASUALTIES

FATALITIES INJURIES

EMPLOYEES ON DUTY
1 0
PUBLIC ON RR PROPERTY
1 0

PROPERTY LOSSES

RAILROAD NON-RAILROAD
$101,000 $10,000

PROBABLE CAUSES OF CASUALTIES

DATA NOT AVAILABLE
REPORTED BY:
NEW YORK CITY TRANSIT AUTHORITY

LOCATION:
NEW YORK, NEW YORK

TIME:
1630 EST

DATE:
12/12/78

WEATHER:
N/A

VISIBILITY:
TUNNEL/0500 FT

TRAIN:
NEW YORK CITY TRANSIT AUTHORITY

RAILROAD:

CLASS:

DIRECTION:
SOUTH

OPERATING PHASE:
EN ROUTE

TRACK/NO:
MAIN 001

ACCIDENT DESCRIPTION:
TRAIN 1 DERAILED; DERAILLED EQUIPMENT STRUCK OBSTRUCTION, RESULTING IN DERAILLED EQUIPMENT OBSTRUCTING TRACK.
SPEED OF TRAIN 1 WAS 015 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

PROBABLE CAUSES:

1. BROKEN WHEEL
2. FOR PROBABLE CAUSE SEE NTSB PUBLICATION RAR-79-8

CASUALTIES
NONE

PROPERTY LOSSES:

RAILROAD
$668,000

NON-RAILROAD
$0
REPORTED BY:
NEW YORK CITY TRANSIT AUTHORITY

LOCATION:  BRONX, NEW YORK

--TIME-- 1433 EDT  --DATE-- 06/08/81  --WEATHER-- CLEAR  --VISIBILITY-- DAY/1000 FT

TRAIN  RAILROAD  CLASS  DIRECTION  OPERATING PHASE  TRACK/NO
1  NEW YORK CITY TRANSIT AUTHORITY  PASSENGER TRANSIT  SOUTH  EN ROUTE  MAIN 002

ACCIDENT DESCRIPTION
EQUIPMENT COMPONENT FELL FROM TRAIN 1, RESULTING IN DERAILMENT. SPEED OF TRAIN 1 WAS 005 MPH. ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

PROBABLE CAUSES
1. PROCEDURAL FAILURE – FOR PROBABLE CAUSE SEE NTSB PUBLICATION SRM-82-2

CASUALTIES
NONE

PROPERTY LOSSES
<table>
<thead>
<tr>
<th>RAILROAD</th>
<th>NON-RAILROAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 120,000</td>
<td>$ 0</td>
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</tbody>
</table>
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 84EXUS0001

REPORTED BY:
NEW YORK CITY TRANSIT AUTHORITY

LOCATION
NEW YORK, NEW YORK

0953 EST 11/09/82 N/A TUNNELS UNKNOWN

TRAIN NUMBER
1 NEW YORK CITY TRANSIT AUTHORITY

CLASS
PASSENGER TRANSIT

DIRECTION
SOUTH

OPERATING PHASE
EN ROUTE

TRACK/NO
RAIL 002

************** ACCIDENT DESCRIPTION ***************

EQUIPMENT COMPONENT FELL FROM TRAIN 1, RESULTING IN DERAILEMENT, RESULTING IN FIRE
SPEED OF TRAIN 1 WAS 010 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

*************** PROBABLE CAUSES *****************

1. IMPROPER INSTALLATION OF TRACTION MOTOR
2. FAILURE OF TRACTION MOTOR NOSE SUPPORT DUE TO UNUSUAL DETERIORATION/WEAR
3. IMPROPER INSPECTION OF TRACTION MOTOR NOSE SUPPORT

*************** CASUALTIES ***********************

NONE

*************** PROPERTY LOSSES ***************

RAILROAD $ 31,000
NON-RAILROAD $ 0
REPORTED BY:  
NEW YORK CITY TRANSIT AUTHORITY

LOCATION:  BRONX, NEW YORK

TIME:  0025 EST  
DATE:  12/04/82  
WEATHER:  CLOUDY  
VISIBILITY:  DARK/0200 FT

TRAIN:  1  NEW YORK CITY TRANSIT AUTHORITY  
RAILROAD:  PASSENGER TRANSIT  
CLASS:  SOUTH  
DIRECTION:  EN ROUTE  
OPERATING PHASE:  MAIN  
TRACK/NO:  002

ACCIDENT DESCRIPTION:

TRAIN 1 STRUCK EMPLOYEE, RESULTING IN FATALITY.  
SPEED OF TRAIN 1 IS UNKNOWN; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

PROBABLE CAUSES:

1. HUMAN FAILURE - GOT DIZZY AND FELL AGAINST MOVING TRAIN
2. PHYSICAL DISABILITY

CASUALTIES:

FATALITIES  INJURIES

EMPLOYEES NOT ON DUTY  1  0

PROPERTY LOSSES:

NONE

PROBABLE CAUSES OF CASUALTIES:

1. STRUCK BY TRAIN
REPORTED BY: NORFOLK AND WESTERN RY CO.

LOCATION: BLOOMINGTON, ILLINOIS

TIME: 0345 CST DATE: 12/03/82 WEATHER: RAIN VISIBILITY: DARK/3400 FT

TRAIN 1 NORFOLK AND WESTERN RY CO.

CLASS: LOCAL FREIGHT DIRECTION: SOUTH OPERATING PHASE: EN ROUTE TRACK/NO: RAIN 001

ACCIDENT DESCRIPTION

TRAIN 1 STRUCK WASHED OUT TRACK, RESULTING IN DERAILED LOCO - RESULTING IN DERAILED CARS - RESULTING IN EMPLOYEE CASUALTY.

SPEED OF TRAIN 1 WAS 030 MPH; ENGINEER WAS AWARE OF IMPENDING ACCIDENT; BRAKES WERE APPLIED.

PROBABLE CAUSES

1. ROADBED WASHOUT
2. PROCEDURAL FAILURE - INCOMPLETE PATROL OF TRACK AFTER HEAVY RAIN
3. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY HR MAINTENANCE OF WAY INSTRUCTIONS #REXI

CASUALTIES

FATALITIES INJURIES

EMPLOYEES ON DUTY 1 0

PROPERTY LOSSES

RAILROAD: $322,000
NON-RAILROAD: $0

PROBABLE CAUSES OF CASUALTIES

1. THROWN FROM SEAT/POSITION IN COLLISION/DERAILMENT
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #N5C83F004

REPORTER BY:
SEABORD COAST LINE RR

LOCATION
LATTIMORE, NORTH CAROLINA

---TIME--- | ---DATE--- | WEATHER | ---VISIBILITY---
0215 EST | 12/13/82 | CLEAR | DARK/1000 FT

TRAIN | RAILROAD | CLASS | DIRECTION | OPERATING PHASE | TRACK/NO
1 | SEABORD COAST LINE RR | FREIGHT UNIT TRAIN | EAST | EN ROUTE | MAIN 001

------------------------------ ACCIDENT DESCRIPTION ------------------------------

TRAIN 1 DERAILED, RESULTING IN DERAILED CARS.
SPEED OF TRAIN 1 WAS 030 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

------------------------------ PROBABLE CAUSES ------------------------------

1. DAMAGE TO TRACK GEOMETRY FROM EXCESSIVE TRAIN BUFF FORCES
2. IMPROPER TRAIN HANDLING ON UNDULATING GRADE

------------------------------ CASUALTIES ------------------------------

NONE

------------------------------ PROPERTY LOSSES ------------------------------

<table>
<thead>
<tr>
<th>RAILROAD</th>
<th>NON-RAILROAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>$889,000</td>
<td>$0</td>
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</table>
# NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

**BRIEF OF RAILROAD ACCIDENT #DEMBF004**

<table>
<thead>
<tr>
<th>REPORTED BY:</th>
<th>LOCATION</th>
<th>LOCATION</th>
<th>TIME</th>
<th>DATE</th>
<th>WEATHER</th>
<th>VISIBILITY</th>
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</thead>
<tbody>
<tr>
<td>SOUTHERN PACIFIC TRANSP. CO.</td>
<td>CANNY, CALIFORNIA</td>
<td>1030 PST</td>
<td>11/09/82</td>
<td>CLOUDY</td>
<td>DAY/5200 FT</td>
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<table>
<thead>
<tr>
<th>TRAIN</th>
<th>RAILROAD</th>
<th>CLASS</th>
<th>DIRECTION</th>
<th>OPERATING PHASE</th>
<th>TRACK/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SOUTHERN PACIFIC TRANSP. CO.</td>
<td>FREIGHT</td>
<td>EAST</td>
<td>EN ROUTE</td>
<td>MAIN</td>
<td>001</td>
</tr>
</tbody>
</table>

**ACCIDENT DESCRIPTION**

TRAIN 1 DERAILED, RESULTING IN DERAILED CARS, RESULTING IN DERAILED LOCO. SPEED OF TRAIN 1 WAS 625 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT. VISIBILITY WAS AFFECTED BY TRACK ALIGNMENT.

**PROBABLE CAUSES**

1. FAILURE OF TRUCKS - WHEELCLIMB IN CURVE FROM CAR BEING OFF CENTER

**CASUALTIES**

NONE

**PROPERTY LOSSES**

<table>
<thead>
<tr>
<th>Railroad</th>
<th>Non-Railroad</th>
</tr>
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<tbody>
<tr>
<td>$534,000</td>
<td>$0</td>
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</table>
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #FTM83F007

REPORTED BY:
SOUTHERN PACIFIC TRANSP. CO.

LOCATION
FIMLAY, TEXAS

TIME
2135 CST

DATE
12/27/82

WEATHER
CLOUDY

VISIBILITY
DARK/0500 FT

TRAIN
1 MISSOURI PACIFIC RR CO.

RAILROAD
FREIGHT

CLASS

DIRECTION
WEST

OPERATING PHASE
EN ROUTE

TRACK/NO.
NAME
001

Andrea

ACCIDENT DESCRIPTION

TRAIN 1 DERAILLED, RESULTING IN DERAILED CARS. RESULTING IN RELEASE OF HAZARDOUS MATERIAL.
SPEED OF TRAIN 1 WAS 048 RPM; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

PROBABLE CAUSES

1. BROKEN RAIL
2. FAILURE OF RAIL - 65 PERCENT DETAIL FRACTURE
3. IMPROPER INSPECTION OF RAIL

CASUALTIES
NONE

PROPERTY LOSSES

<table>
<thead>
<tr>
<th>RAILROAD</th>
<th>NON-RAILROAD</th>
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<tbody>
<tr>
<td>$507,000</td>
<td>$0</td>
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</table>
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #FTU02FR035

REPORTED BY:
ST. LOUIS SOUTHWESTERN RY CO.

------------------LOCATION------------------
RANDEL'S, MISSOURI

----------TIME----------  ----------DATE----------  WEATHER  ----------VISIBILITY----------
10:15 CDT  09/20/02  CLEAR  DAY/3500 FT

TRAIN  ------------------RAILROAD------------------
1  ST. LOUIS SOUTHWESTERN RY CO.  FREIGHT  NORTH  EN ROUTE  MAIN
2  ST. LOUIS SOUTHWESTERN RY CO.  FREIGHT  SOUTH  EN ROUTE  MAIN

+++++++++++++++++++++++++++++++++++++++ ACCIDENT DESCRIPTION ++++++++++++++++++++++++++++++++ 

TRAIN 1 STRUCK FRONT OF TRAIN 2, RESULTING IN DERAILER LOCO.
SPEED OF TRAIN 1 WAS 61 MPH; ENGINEER WAS AWARE OF IMPENDING ACCIDENT; BRAKES WERE
APPLIED. SPEED OF TRAIN 2 WAS 002 MPH; ENGINEER WAS NOT AWARE OF IMPENDING ACCIDENT.

+++++++++++++++++++++++++++++++++++++++ PROBABLE CAUSES +++++++++++++++++++++++++++++++++++++++

1. PROCEDURAL FAILURE - DID NOT STOP FOR STOP AND STAY SIGNAL
2. LACK OF EXPERIENCE
3. INATTENTIVENESS TO DUTIES
4. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 8527

+++++++++++++++++++++++++++++++++++++++ CASUALTIES ++++++++++++++++++++++++++++++++++++++++++++++
NONE

+++++++++++++++++++++++++++++++++++++++ PROPERTY LOSSES ++++++++++++++++++++++++++++++++++++++++ 

RAILROAD  NON-RAILROAD
$ 398,000  $ 0
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #DEN83F008

REPORTED BY:
UNION PACIFIC RR

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TIME</th>
<th>DATE</th>
<th>WEATHER</th>
<th>VISIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAXTON, NEBRASKA</td>
<td>1255 MST</td>
<td>12/10/82</td>
<td>CLOUDY</td>
<td>DAY/9000 FT</td>
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<table>
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<tr>
<th>TRAIN</th>
<th>CLASS</th>
<th>DIRECTION</th>
<th>OPERATING PHASE</th>
<th>TRACK/NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 UNION PACIFIC RR</td>
<td>FREIGHT</td>
<td>WEST</td>
<td>EN ROUTE</td>
<td>MAIN 002</td>
</tr>
</tbody>
</table>

************ ACCIDENT DESCRIPTION ************

TRAIN 1 STRUCK EMPLOYEE, RESULTING IN FATALITY.
SPEED OF TRAIN 1 WAS 057 MPH; ENGINEER WAS AWARE OF IMPENDING ACCIDENT; BRAKES WERE
APPLIED.

************ PROBABLE CAUSES ************

1. FAILURE OF PERSON TO DETECT APPROACHING TRAIN
2. HUMAN FAILURE - STEPPED OFF TAMPER MACHINE BETWEEN MAIN TRACKS

<table>
<thead>
<tr>
<th>CASUALTIES</th>
<th>PROPERTY LOSSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATALITIES</td>
<td>INJURIES</td>
</tr>
<tr>
<td>EMPLOYEES ON DUTY</td>
<td>1</td>
</tr>
</tbody>
</table>

************ PROBABLE CAUSES OF CASUALTIES ************

1. STRUCK BY TRAIN