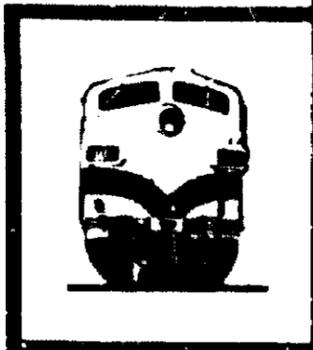


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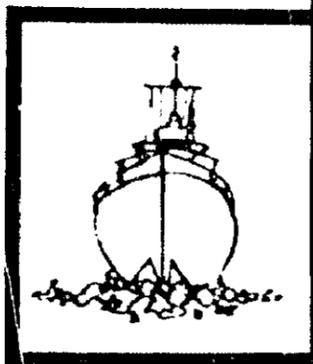


NATIONAL TRANSPORTATION SAFETY BOARD

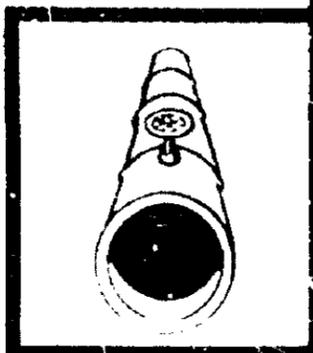


WASHINGTON, D.C. 20594

RAILROAD ACCIDENT REPORTS



**BRIEF FORMAT
ISSUE NUMBER 1 - - 1985**



NTSB/RAB-86/01



UNITED STATES GOVERNMENT

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA. 22161

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. NTSB/RAB-86/01		2. Government Accession No. PB86-917201		3. Recipient's Catalog No.																																		
4. Title and Subtitle Railroad Accident Report: Brief Format, Issue Number 1, 1985				5. Report Date																																		
				6. Performing Organization Code																																		
7. Author(s)				8. Performing Organization Report No.																																		
9. Performing Organization Name and Address National Transportation Safety Board Bureau of Field Operations Washington, D.C. 20594				10. Work Unit No.																																		
				11. Contract or Grant No.																																		
				13. Type of Report and Period Covered 39 U.S. Railroad Accidents occurring between 1/1/85 and 6/30/85, and 12 from prior quarters																																		
12. Sponsoring Agency Name and Address NATIONAL TRANSPORTATION SAFETY BOARD Washington, D. C. 20594				14. Sponsoring Agency Code																																		
15. Supplementary Notes																																						
16. Abstract This publication contains briefs of selected railroad accidents occurring in U.S. Railroad operations. 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 border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">84-74</td> <td style="width: 33%;">85-3</td> <td style="width: 33%;">85-54</td> </tr> <tr> <td>84-78</td> <td>85-5</td> <td>85-58</td> </tr> <tr> <td>84-82</td> <td>85-8</td> <td>85-60 through 64</td> </tr> <tr> <td>84-84</td> <td>85-11, 12, 13</td> <td>85-66</td> </tr> <tr> <td>84-95</td> <td>85-19, 20</td> <td>85-68</td> </tr> <tr> <td>84-99</td> <td>85-22, 23</td> <td>85-71</td> </tr> <tr> <td>84-115, 116</td> <td>85-26</td> <td>85-73</td> </tr> <tr> <td>84-125</td> <td>85-33, 34, 35</td> <td>85-75</td> </tr> <tr> <td>84-132</td> <td>85-38</td> <td>85-78, 79</td> </tr> <tr> <td>84-154</td> <td>85-44, 45, 46</td> <td>85-83</td> </tr> <tr> <td>84-165</td> <td>85-49</td> <td>85-86 through 90</td> </tr> </table>						84-74	85-3	85-54	84-78	85-5	85-58	84-82	85-8	85-60 through 64	84-84	85-11, 12, 13	85-66	84-95	85-19, 20	85-68	84-99	85-22, 23	85-71	84-115, 116	85-26	85-73	84-125	85-33, 34, 35	85-75	84-132	85-38	85-78, 79	84-154	85-44, 45, 46	85-83	84-165	85-49	85-86 through 90
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17. Key Words				18. Distribution Statement This document is available through the National Technical Information Service, Springfield, Virginia 22161																																		
19. Security Classification (of this report) UNCLASSIFIED		20. Security Classification (of this page) UNCLASSIFIED		21. No. of Pages 61	22. Price																																	

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 51 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 six railroad field offices. (See figure 1.) 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 four tables as they reflect only a six-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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Public Inquiries Section
Washington, D.C. 20594

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REPORT OF ACCIDENTS 5-55

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, 1976, 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.

TABLE 1
 ACCIDENTS BY REPORTING RAILROAD AND TYPE
 (FIGURES BELOW REPRESENT A 6 MONTH PERIOD)

REPORTING RAILROAD	COLLISION	DERAILMENT	EMPLOYEE FATALITY	PERSONAL FATALITY	GRADE CROSSING	TOTAL	HAZ. MAT. (1) INVOLVED
AMTRAK	0	0	1	0	0	1	0
ATCHISON TOPEKA AND SANTA FE RY CO.	1	2	1	0	0	4	1
BALTIMORE & OHIO RR CO.	0	1	2	0	0	3	0
BOSTON & MAINE CORP.	0	1	0	0	0	1	0
BURLINGTON NORTHERN INC.	1	1	0	0	0	2	1
CHICAGO AND NORTH WESTERN TRANSP CO.	0	1	0	0	0	1	1
DELAWARE AND HUDSON RY CO.	0	1	0	0	0	1	0
DENVER & RIO GRANDE WESTERN RR CO.	0	1	0	0	0	1	0
KANSAS CITY SOUTHERN RY CO.	0	1	0	0	0	1	0
METROPOLITAN DADE COUNTY TRANSIT AGENCY	1	0	0	0	0	1	0
MISSOURI PACIFIC RR CO.	0	0	1	0	1	2	1
NEW YORK CITY TRANSIT AUTHORITY	0	0	1	0	0	1	0
NORFOLK AND WESTERN RY CO.	0	1	0	0	0	1	0
SE PENNSYLVANIA TRANSPORTATION AUTHORITY	2	0	1	0	0	3	0
SEABOARD COAST LINE RR	1	3	0	0	1	5	1
SOUTHERN PACIFIC TRANSP. CO.	1	3	0	0	1	5	1
ST. LOUIS SOUTHWESTERN RY CO.	0	1	0	0	0	1	0
UNION PACIFIC RR	0	4	0	0	1	5	0
TOTAL	7	21	7	0	4	39	6

(1) NOT INCLUDED IN TOTAL RAILROAD ACCIDENTS/INCIDENTS INVESTIGATED

TABLE 2
ACCIDENTS BY STATE AND TYPE
(FIGURES BELOW REPRESENT A 6 MONTH PERIOD)

STATE	COLLISION	DERAILMENT	EMPLOYEE FATALITY	PERSONAL FATALITY	GRADE CROSSING	TOTAL	HAZ. MAT. (1) INVOLVED
ARIZONA	0	1	0	0	0	1	0
CALIFORNIA	0	3	0	0	1	4	1
COLORADO	0	1	0	0	1	2	0
FLORIDA	1	1	0	0	0	2	0
ILLINOIS	0	1	0	0	0	1	0
KANSAS	1	1	2	0	0	4	1
MASSACHUSETTS	0	0	0	0	0	0	0
MONTANA	1	2	0	0	0	3	0
NEBRASKA	0	0	0	0	0	0	0
NEVADA	1	1	0	0	0	2	0
NEW YORK	0	0	1	0	0	1	0
OHIO	0	1	1	0	0	2	0
OKLAHOMA	0	1	0	0	0	1	0
PENNSYLVANIA	2	2	2	0	0	6	0
SOUTH CAROLINA	1	2	0	0	1	4	1
TEXAS	0	1	0	0	1	2	2
UTAH	0	0	0	0	0	0	0
WEST VIRGINIA	0	1	1	0	0	2	0
WISCONSIN	0	1	0	0	0	1	0
WYOMING	0	0	0	0	0	0	0
TOTAL	7	21	7	0	4	39	6

(1) NOT INCLUDED IN TOTAL RAILROAD ACCIDENTS/INCIDENTS INVESTIGATED

TABLE 3
CASUALTIES BY CLASS OF PERSON AND ACCIDENT TYPE
(FIGURES BELOW REPRESENT A 6 MONTH PERIOD)

	COLLISION	DEPARTENT	PERSONAL CASUALTY	GRADE CROSSING	TOTAL
RAILROAD EMPLOYEES					
FATALITIES.....	1	0	7	0	8
INJURIES.....	9	4	0	2	15
PASSENGERS					
FATALITIES.....	0	0	0	0	0
INJURIES.....	16	30	0	0	46
GENERAL PUBLIC					
FATALITIES.....	0	0	0	3	3
INJURIES.....	2	0	0	10	12

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 4
 CAUSAL FACTORS BY MAJOR CATEGORY AND ACCIDENT TYPE
 (FIGURES BELOW REPRESENT A 6 MONTH PERIOD)

	COLLISION	DEPARTMENT	EMPLOYEE FATALITY	PERSONAL FATALITY	GRADE CROSSING	TOTAL	HAZ. MAT. (1) INVOLVED
TRACK AND STRUCTURE DEFECTS	0	8	0	0	0	8	2
EQUIPMENT FAILURES	0	6	0	0	0	6	1
OPERATING PRACTICES	1	2	1	0	0	4	0
OTHER (2)	6	5	6	0	4	21	3
TOTAL	7	21	7	0	4	39	6

(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 TIEDOWN AND/OR BLOCKING

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

95-0078

BRIEF OF RAILROAD ACCIDENT #NYC85FR016

REPORTED BY:
AMTRAK

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
EDDYSTONE, PENNSYLVANIA		0523 EDT	06/11/85	CLEAR	DAWN OR DUSK/0780 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	AMTRAK	PASSENGER		SOUTH	EN ROUTE	MAIN 004

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

AMTRAK PASSENGER TRAIN NO. 252 STRUCK AND FATALLY INJURED A WORK TRAIN CONDUCTOR WHO WAS WALKING CLOSE TO THE TRACK. NO. 252 WAS TRAVELING SOUTH AT 90 MPH ON THE AMTRAK MAINLINE. THE WORK TRAIN WAS STANDING ON A SIDETRACK NEARBY. THE ENGINEER OF THE WORK TRAIN OBSERVED THE CONDUCTOR WALK ALONG THE MAIN TRACK NEAR THE ABUTMENT OF A BRIDGE OVER A STREET BELOW. HE SAW THE LIGHTS OF THE ONCOMING PASSENGER TRAIN AND SAW THE CONDUCTOR THROWN UPWARD AND OVER THE BRIDGE ABUTMENT ONTO THE STREET BELOW. THE WORK TRAIN WAS WAITING TO PROCEED ONTO THE MAIN TRACK AT THE TIME.

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

1. HUMAN FAILURE - CONDUCTOR WALKED TOO CLOSE TO TRACK

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	1	0

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

NONE

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

1. STRUCK BY TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

84-0116

BRIEF OF RAILROAD ACCIDENT #FTNB4FR029

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
SCHOLLE, NEW MEXICO		2220 MDT	07/09/84	CLEAR	DARK/1500 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	ATCHISON TOPEKA AND SANTA FE RY CO.	FREIGHT		WEST	EN ROUTE	MAIN 001

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

FREIGHT TRAIN NO. 1-579-07, CONSISTING OF 5 LOCOMOTIVE UNITS AND 107 CARS, HAD 14 CARS DERAIL WHILE MOVING 10 MPH AT THE BOTTOM OF A LONG DESCENDING GRADE. THE TRAIN BRAKES HAD BEEN RELEASED AND THE ENGINEER WAS HOLDING THE TRAIN BACK WITH DYNAMIC BRAKING. A TANK CAR OF CYCLOHEXANONE RUPTURED AND INHALATION OF THE VAPORS RESULTED IN INJURY TO THE REAR BRAKEMAN. EMPTY CARS HAD BEEN PLACED IN THE FRONT OF THE TRAIN WITH HEAVY TONNAGE CARS BEHIND THEM.

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

- DAMAGE TO SPIKES AND RAIL FASTENERS FROM EXCESSIVE TRAIN BUFF FORCES
- LACK OF INSTRUCTIONS FOR DISTRIBUTION OF LOADED AND EMPTY CARS IN TRAIN CONSIST

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	0	1

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

	RAILROAD	NON-RAILROAD
	\$ 217,000	\$ 0

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

- TOXIC REACTION

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0005

BRIEF OF RAILROAD ACCIDENT #FTUB5FR004

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
CAPRON, OKLAHOMA	0935 CST	01/05/85	CLEAR	DAY/5000 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	ATCHISON TOPEKA AND SANTA FE RY CO.	FREIGHT	EAST	EN ROUTE	MAIN 001

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

EASTBOUND FREIGHT TRAIN 1901-3, CONSISTING OF 3 LOCOMOTIVE UNITS AND 37 CARS, HAD 23 LOADED PIGGYBACK CARS DERAIL AT A FACING POINT SWITCH WHILE MOVING AT 68 MPH. THERE WAS CONSIDERABLE PROPERTY DAMAGE. A SCALE HOUSE AT A NEARBY GRAIN ELEVATOR WAS DESTROYED BY DERAILED CARS, AND THE DAMAGE TO LADING IN THE PIGGYBACK TRAILER/CONTAINERS WAS OVER \$650,000. THE TRAIN WAS MOVING OVER THE SWITCH WHEN THE SWITCH ROD BROKE AND THE SWITCH OPENED UNDER THE 9TH CAR. INVESTIGATION OF THE BROKEN SWITCH ROD FRACTURE SURFACE REVEALED A 90% OLD BREAK.

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

1. FAILURE OF SWITCH ROD DUE TO NORMAL DETERIORATION/WEAR
2. FAILURE OF SWITCH ROD - BROKEN ROD LET SWITCH OPEN UNDER MOVING TRAIN

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,345,000	\$ 40,000

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0011

BRIEF OF RAILROAD ACCIDENT #DEN05FR013

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
ABILENE, KANSAS	0515 CST	01/13/85	CLEAR	DARK/6300 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	ATCHISON TOPEKA AND SANTA FE RY CO.	LOCAL FREIGHT	EAST	EN ROUTE	MAIN 001
2	ATCHISON TOPEKA AND SANTA FE RY CO.	LOCAL FREIGHT	EAST	UNATTENDED/STORAGE	MAIN 001

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

FREIGHT TRAIN NO. EXTRA 3027 EAST, MOVING 29 MPH, STRUCK THE REAR OF FREIGHT TRAIN NO. EXTRA 3636 EAST STANDING ON THE MAIN TRACK. FOUR LOCOMOTIVE UNITS AND 12 CARS OF NO. 3027 AND 9 CARS OF NO. 3636 WERE DERAILED. THE ENGINEER ABOARD LEAD LOCOMOTIVE 3027 WAS INJURED AND 3 OF HIS CREWMEMBERS RECEIVED MINOR INJURIES. THERE WAS NO CABOOSE ON EITHER TRAIN. THE END-OF-TRAIN MARKER ON NO. 3636 HAD GONE OUT DUE TO DEAD BATTERIES. POST ACCIDENT TESTS REVEALED THAT THE MARKER, ALTHOUGH NOT FUNCTIONING, WAS STILL VISIBLE OVER 2,000 FEET AWAY. NINE TANK CARS OF FUEL DERAILED AND SOME OIL LEAKED INTO A DRAINAGE DITCH. BOTH TRAINS WERE WITHIN YARD LIMITS. NO. 3027 SHOULD HAVE BEEN MOVING AT RESTRICTED SPEED. NO. 3636 HAD BEEN LEFT STANDING UNATTENDED AT THE TIME AND THE CREW OF NO. 3027 WAS UNAWARE OF ITS PRESENCE.

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1

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

1. HUMAN FAILURE - ENGINEER OPERATED TRAIN OVER RESTRICTED SPEED
2. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 0111D
3. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 093

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	0	1

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

RAILROAD	NON-RAILROAD
\$ 1,070,000	\$ 0

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

1. THROWN FROM SEAT/POSITION IN COLLISION/DERAILEMENT

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #DEN05FR014

85-0023

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
MEDICINE LODGE, KANSAS	2310 CST	01/30/85	SNOW	DARK/0070 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	ATCHISON TOPEKA AND SANTA FE RY CO.	LOCAL FREIGHT	EAST	MOVEMENT IN YARD	INDUSTRIAL 023

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

A BRAKEMAN WAS FATALLY INJURED WHEN HE FELL UNDER A CAR DURING A SWITCHING MOVE. THE CREW WAS SWITCHING CARS IN AND OUT OF INDUSTRIAL SIDINGS USING 2 LOCOMOTIVE UNITS. THEY WERE PULLING 7 CARS OUT OF A SIDETRACK WHEN THE BRAKEMAN FELL FROM A CAR AND WAS RUN OVER BY THE LAST CAR. HE HAD PREVIOUSLY BEEN GIVEN A DISCIPLINARY LETTER WARNING HIM THAT HIS LACK OF CONCERN FOR SAFETY COULD RESULT IN A SERIOUS ACCIDENT.

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

1. HUMAN FAILURE - EMPLOYEE FELL UNDER THE WHEEL OF MOVING CAR

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	1	0

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

NONE

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

1. FALLING/TRIPPING

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0038

BRIEF OF RAILROAD ACCIDENT #LAX85FR007

REPORTED BY:
ATCHISON TOPEKA AND SANTA FE RY CO.

-----LOCATION-----		---TIME---	---DATE---	WEATHER	-----VISIBILITY-----	
FLASSTAFF, ARIZONA		2045 MBT	02/24/85	CLEAR	DARK/0200 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---	
1	ATCHISON TOPEKA AND SANTA FE RY CO.	FREIGHT	EAST	EN ROUTE	MAIN	001

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

FREIGHT TRAIN 1-804-23 HAD 17 CARS DERAIL WHILE MOVING OVER A DOUBLE TRACK CROSSOVER AT 55 MPH. THE TRAIN CONSISTED OF 4 LOCOMOTIVE UNITS AND 85 CARS. THE 26TH CAR HAD A BURNED OFF PLAIN BEARING AXLE JOURNAL. THE TRAIN HAD PASSED A HOT BOX DETECTOR 15 MILES BEFORE THE ACCIDENT SITE AND THE FAILED BEARING MEASURED 8 ON THE SCANNER, BUT THE SCANNER WAS SET TO TRIP ONLY WHEN A READING OF 10 WAS DETECTED. THE CAR WITH THE FAILED BEARING AND JOURNAL WAS LOADED WITH 78 TONS OF CEMENT.

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

1. OVER HEATED AXLE JOURNAL
2. OVER HEATED PLAIN BEARING
3. FAILURE OF PLAIN BEARING FROM UNKNOWN CAUSES

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 288,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #NYC03FRO08

85-0022

REPORTED BY:
BALTIMORE & OHIO RR CO.

LOCATION	TIME	DATE	WEATHER	VISIBILITY
PIEDMONT, WEST VIRGINIA	0420 EST	01/30/85	CLEAR	DARK/1000 FT

TRAIN	RAILROAD	CLASS	DIRECTION	OPERATING PHASE	TRACK/NO
1	BALTIMORE & OHIO RR CO.	FREIGHT	EAST	SETOUT/PICKUP NOT IN YARD	MAIN 001

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

WESTBOUND FREIGHT TRAIN #W 99, CONSISTING OF 4 LOCOMOTIVE UNITS AND 98 CARS, STOPPED EN ROUTE TO SWITCH CARS IN A SIDETRACK. AFTER THE SWITCHING MOVE AND WHILE BACKING TO COUPLE WITH THE REAR PORTION OF THE TRAIN, THE HEAD BRAKEMAN SLIPPED OFF THE END OF THE CAR HE WAS RIDING AND THE TRAIN BACKED OVER HIM. HE WAS FATALLY INJURED. EVIDENCE INDICATED HE HAD BEEN STANDING ON THE CENTER SILL AT THE END OF THE CAR AND HAD STEPPED ONTO THE UNCOUPLING ROD WHEN HE FELL OFF. SAFETY RULE NO. 90 REQUIRES THAT EMPLOYEES NOT STEP ON UNCOUPLING RODS OR LEVERS.

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

1. FAILURE TO PERFORM PROCEDURE PRESCRIBED BY RR TRAIN CREW SAFETY RULE #90
2. HUMAN FAILURE - BRAKEMAN RODE ON UNCOUPLING ROD AND FELL OFF CAR

----- CASUALTIES -----

EMPLOYEES ON DUTY	FATALITIES INJURIES	
	FATALITIES	INJURIES
	1	0

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

NONE

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

1. STRUCK BY TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0NYC05FR010

85-0026

REPORTED BY:
BALTIMORE & OHIO RR CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
BROOK, PENNSYLVANIA		0230 EST	02/03/85	CLEAR	DARK/0050 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	BALTIMORE & OHIO RR CO.	FREIGHT		EAST	EN ROUTE	MAIN 001

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

A FREIGHT TRAIN DESIGNATED AS GRAIN EXTRA EAST HAD 18 CARS DERAIL WHILE TRAVELING ABOUT 25 MPH THROUGH A TUNNEL. THE TRAIN CONSISTED OF 4 LOCOMOTIVE UNITS ON THE HEAD END, 123 LOADED GRAIN CARS, AND 3 HELPER LOCOMOTIVE UNITS ON THE REAR END. THE DERAILED CARS HAD BEEN MOVING THROUGH A SERIES OF 8-DEGREE CURVES. THE OUTSIDE CURVE RAILS IN THE AREA OF DERAILMENT SHOWED A HIGH DEGREE OF WEAR IN THE RAIL JOINTS.

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

1. FAILURE OF RAIL - WHEEL CLIMBED WORN RAIL HEAD IN 8-DEGREE CURVES

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 403,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #CH185FR018

85-0060

REPORTED BY:
BALTIMORE & OHIO RR CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
EAST MONROE, OHIO		0025 EST	04/25/85	CLEAR	DARK/0100 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	BALTIMORE & OHIO RR CO.	FREIGHT		WEST	SETOUT/PICKUP NOT IN YARD	MAIN 001

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

FREIGHT TRAIN EXTRA 435, CONSISTING OF 3 LOCOMOTIVE UNITS AND 113 CARS, WAS MAKING A SWITCHING MOVE IN A SIDING WHEN THE BRAKEMAN SLIPPED FROM THE SIDE OF A CAR AND FELL UNDER THE TRAIN, RECEIVING FATAL INJURIES. THE UNITS AND SEVEN CARS WERE RACKING INTO THE SIDING AT THE TIME, WITH THE REMAINDER OF THE TRAIN STANDING ON THE MAIN TRACK. THE CONDUCTOR HEARD THE BRAKEMAN CALL FOR HELP, RAN TO HIM, AND SAW THE TRAIN HAD RUN OVER HIS RIGHT LEG. THE BRAKEMAN SAID, "I SLIPPED", THEN BECAME UNCONSCIOUS. A VOLUNTEER EMERGENCY MEDICAL TEAM ARRIVED WITHIN 30 MINUTES, BUT HE DIED ON THE WAY TO THE HOSPITAL. AUTOPSY TESTS FOR ALCOHOL WERE NEGATIVE.

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

1. HUMAN FAILURE - BRAKEMAN FELL FROM CAR DURING SWITCHING
2. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR TRAIN CREW SAFETY RULE #75

----- CASUALTIES -----		----- PROPERTY LOSSES -----	
	FATALITIES	INJURIES	
EMPLOYEES ON DUTY	1	0	NONE

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

1. FALLING/TRIPPING

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0NYC83FR013

85-0046

REPORTED BY:
BOSTON & MAINE CORP.

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
GREENFIELD, MASSACHUSETTS	1140 EST	03/29/85	CLEAR	DAY/UNKNOWN

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	BOSTON & MAINE CORP.	FREIGHTY	SOUTH	EN ROUTE	MAIN 001

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

FREIGHT TRAIN CPED, CONSISTING OF 3 LOCOMOTIVE UNITS AND 67 CARS, HAD 9 CARS DERAIL WHILE MOVING ABOUT 40 MPH. THE CARS WERE TANK CARS CONTAINING ALCOHOL. THE BOTTOM VALVES OF THE FIRST 3 CARS WERE DAMAGED. THE ALCOHOL SPILLED AND IGNITED, BURNING UP THE 3 CARS, 350 FEET OF TRACK AND 50 ACRES OF WOODED LAND NEXT TO THE TRACK. TWO-THOUSAND PEOPLE WERE EVACUATED IN A 1-MILE RADIUS OF THE SITE, AND AN INTERSTATE HIGHWAY WAS CLOSED FOR 6 HOURS. INVESTIGATION REVEALED A TANK CAR BODY BOLSTER WAS RIDING OFF-CENTER ON THE TRUCK FRAME OF THE LEAD TRUCK.

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

1. FAILURE OF CAR/LOCO CENTER PIN FROM UNKNOWN CAUSES

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 62,000	\$ UNKNOWN

NATIONAL TRANSPORTATION SAFETY BOARD
 WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0DEN03FR017

25-0062

REPORTED BY:
 BURLINGTON NORTHERN INC.

-----LOCATION-----		---TIME--	---DATE--	WEATHER	-----VISIBILITY-----
SHELBY, MONTANA		0755 MST	04/25/85	CLOUDY	DAY/3000 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	BURLINGTON NORTHERN INC.	FREIGHT	EAST	EN ROUTE	MAIN 001
2	BURLINGTON NORTHERN INC.	FREIGHT	WEST	EN ROUTE	MAIN 001

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

FREIGHT TRAIN EXTRA 2208 EAST AND FREIGHT TRAIN EXTRA 2231 WEST COLLIDED HEAD-ON ABOUT 9 MILES SOUTH OF SHELBY, MONTANA. THE TRAIN DISPATCHER HAD ARRANGED BY TRAIN ORDER FOR THE TRAINS TO MEET AT NAISMITH SIDING WITH TRAIN 2208 TO ENTER THE SIDING. TRAIN 2231 HAD STOPPED ON THE MAIN TRACK TO WAIT FOR TRAIN 2208 TO ENTER THE SIDING. THE CREW OF TRAIN 2208 DID NOT COMPLY WITH THE TRAIN ORDER AND THEY CONTINUED ON THE MAIN TRACK, COLLIDING WITH THE STANDING TRAIN AT A SPEED OF ABOUT 25 MPH. THERE WERE NO CASUALTIES, AS BOTH CREWS WERE AWARE OF THE IMPENDING COLLISION AND JUMPED FROM THE TRAINS. A TOTAL OF 6 LOCOMOTIVE UNITS AND 7 CARS WERE DERAILED.

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

1. HUMAN FAILURE - CREW DID NOT COMPLY WITH ORDER TO ENTER SIDING
2. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 08A-2

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 308,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #FTNBSFR013

85-0064

REPORTED BY:
BURLINGTON NORTHERN INC.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
CHILDRESS, TEXAS		0045 CDT	05/02/85	CLEAR	DARK/0900 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	BURLINGTON NORTHERN INC.	FREIGHT		EAST	EN ROUTE	MAIN 001

***** ACCIDENT DESCRIPTION *****
 FREIGHT TRAIN NO. 199-01, CONSISTING OF 4 LOCOMOTIVE UNITS AND 72 CARS, HAD 6 CARS DERAIL WHILE MOVING ABOUT 25 MPH. ONE OF THE CARS WAS A TANK CAR CONTAINING HYDROGEN PEROXIDE. THE CAR TURNED OVER AND ABOUT 700 GALLONS OF HYDROGEN PEROXIDE LEAKED FROM THE VENT VALVE UNTIL A WRECKING CREW COULD TURN THE CAR UPRIGHT. ABOUT 200 PERSONS WERE EVACUATED FROM A 1/4 MILE RADIUS OF THE SITE FOR ABOUT 6 HOURS. INVESTIGATION REVEALED LOW RAIL JOINTS AND BATTERED RAIL HEADS ON THE JOINTED RAIL FOR ABOUT 1,000 FEET DISTANCE THROUGH THE DERAILMENT AREA.

----- PROBABLE CAUSES -----
 1. FAILURE OF TRACK CROSS ELEVATION - IRREGULAR CROSS ELEVATION AND LOW RAIL JOINTS

----- CASUALTIES -----	----- PROPERTY LOSSES -----	
NONE	RAILROAD	NON-RAILROAD
	\$ 66,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

84-0115

BRIEF OF RAILROAD ACCIDENT #DCAB4NR013

REPORTED BY:
CENTRAL VERMONT RY INC.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
ESSEX JUNCTION, VERMONT		0650 EDT	07/07/84	CLOUDY	DAWN OR DUSK/1000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	AMTRAK	PASSENGER		NORTH	EN ROUTE	MAIN 001

+++++ ACCIDENT DESCRIPTION +++++
AMTRAK PASSENGER TRAIN NO. 60, THE MONTREALER, DERAILED WHILE PASSING OVER A WASHED-OUT SECTION OF GRAVEL EMBANKMENT UNDER THE MAIN TRACK OF THE CENTRAL VERMONT RAILWAY NEAR ESSEX JUNCTION, VERMONT. TWO LOCOMOTIVE UNITS AND THE FORWARD SEVEN CARS OF THE TRAIN DERAILED AND WERE DESTROYED OR HEAVILY DAMAGED. THREE PASSENGERS AND AN AMTRAK SLEEPING CAR ATTENDANT WERE KILLED; ONE CENTRAL VERMONT CREWMEMBER DIED ABOUT 3 HOURS AFTER THE ACCIDENT AS A RESULT OF INJURIES SUSTAINED IN THE ACCIDENT. ONE CENTRAL VERMONT CREWMEMBER, TWO AMTRAK ATTENDANTS, AND 26 PASSENGERS WERE SERIOUSLY INJURED. A FLASH FLOOD HAD DESTROYED THE RAILROAD SUPPORT EMBANKMENT OVER A SMALL STREAM DURING A PROLONGED PERIOD OF EXTRAORDINARILY HEAVY RAINFALL. THE FLASH FLOOD WAS PRECIPITATED BY THE HEAVY RAINS AND THE COLLAPSE OF A SERIES OF BEAVER DAMS UPSTREAM OF THE EMBANKMENT.

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

1. DAMAGE BY NATURAL FORCES - SEE NTSB REPORT RAR-85-14 FOR PROBABLE CAUSE

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	2	3
PASSENGERS	3	26

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

	RAILROAD	NON-RAILROAD
	\$ 6,586,000	\$ 0

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

1. THROWN FROM TRAIN
2. COLLAPSE OF STRUCTURE (TRAIN)

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0CH184FR008

84-0125

REPORTED BY:
CHESAPEAKE AND OHIO RY CO. (THE)

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
OREGON, OHIO		0405 EDT	07/23/84	CLOUDY	DARK BUT LIGHTED/1000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	CHESAPEAKE AND OHIO RY CO. (THE)	YARD/SWITCHING		SOUTH	MOVEMENT IN YARD	YARD 003

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

A SWITCHMAN WAS FATALLY INJURED IN THE TOLEDO DOCKS LAKE FRONT YARD WHEN HE WAS CAUGHT IN THE CLOSE CLEARANCE OF THE CORNER OF THE CAR HE WAS RIDING AND THE CORNER OF A LOCOMOTIVE STANDING ON AN ADJACENT TRACK. THE YARD TRAIN OF 5 CARS WAS BEING SHOVED THROUGH A CROSSOVER TO THE TRACK THAT THE STANDING LOCOMOTIVE WAS ON. THE LOCOMOTIVE WAS NOT CLEAR OF THE CROSSOVER. THE ENGINEER OF THE STANDING LOCOMOTIVE WITNESSED THE ACCIDENT AND SAID THE SWITCHMAN WAS NOT LOOKING FORWARD TOWARD THE LOCOMOTIVE. THE ENGINEER SHOUTED TO THE SWITCHMAN BUT COULD NOT GET HIS ATTENTION.

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

1. HUMAN FAILURE - SWITCHMAN DID NOT LOOK TOWARD FOULED CROSSOVER
2. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR TRAIN CREW SAFETY RULE 096
3. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR TRAIN CREW SAFETY RULE 048
4. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 0103K

----- OTHER FACTORS -----

1. CONTROL DISPLAYS/OPERATING CONTROLS CONFUSING OR DIFFICULT TO SEE
2. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 0104A
3. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 0104B

----- CASUALTIES -----

EMPLOYEES ON DUTY	FATALITIES INJURIES	
	FATALITIES	INJURIES
	1	0

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

RAILROAD		NON-RAILROAD	
\$	3,000	\$	0

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

1. STRUCK TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

84-95

Reported by: Chessie System Brief of Railroad No.: DCA-84-R-M010
 Location: Connellsville, Pennsylvania Time: 6:40 a.m. Date: 5/29/84 Weather: Cloudy Visibility: 6 miles
 Train: Railroad: Class: Direction: Operating Phase: Track No.:
 1 Amtrak Passenger East En Route 2 Main
 2 _____ _____ _____ _____ _____

Accident Description:

National Railroad Passenger Corporation (Amtrak) eastbound passenger train No. 440, The Capital Limited, while traveling 38 m/h, entered a 4 degree 30 minute curve. As the train proceeded around the curve, the engineer and fireman saw that there was a washout ahead, but before the engineer could apply the train brakes, the locomotive plunged into the washed out section of track. Two locomotives and seven cars derailed.

Probable Cause: 1. Failure of Chessie System to keep drainage culverts free of obstructions.
 2. Failure of Chessie System to have a surface observation system to monitor the affects of weather on operating conditions

Other Factors: 1. Heavy water run off from unusual heavy rainfall
 2. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>0</u>	_____		<u>4</u>	<u>Hospitalized (2 passengers, 2 crew)</u>
	<u>0</u>	_____		<u>20</u>	<u>Treated and Released (14 passengers, 5 crew, 1 rescuer)</u>

Probable Cause of Casualty:

- Striking injurious environment (seats, baggage, protuberances)
- Falling

Property Losses:
 Railroad: \$1,500,000
 Non-Railroad: _____

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

85-44

Reported by: Chicago & Northwestern Transportation Co.

Brief of Railroad No.: CHI-85-FR014

Location:	Time:	Date:	Weather:	Visibility:	
<u>Mequon, Wisconsin</u>	<u>0126 CST</u>	<u>03-16-85</u>	<u>Clear</u>	<u>Dark/1,000 ft.</u>	
Train:	Railroad:	Class:	Direction:	Operating Phase:	Track No.:
<u>1</u>	<u>Chicago & Northwestern Trans. Co.</u>	<u>Freight</u>	<u>West</u>	<u>Enroute</u>	<u>2</u>
<u>2</u>	_____	_____	_____	_____	_____
<u>3</u>	_____	_____	_____	_____	_____

Accident Description:

Freight train No. PRGBB 151, consisting of 3 locomotive units and 108 cars, had cars 70 through 95 derail while moving about 38 m.p.h. The derailed cars struck and derailed 6 empty box cars standing on an adjacent track. A tank car of sodium hydroxide was punctured and all cargo was lost. The rails at the site had been manufactured in 1936 and were found to contain non-metallic inclusions. A broken rail contained a transverse fissure with several recent growth rings. This type of rail was made before methods of controlled cooling and rolling were used in the steel making process.

Probable Cause:

1. Broken rail - rail made in 1936 contained defects.
2. _____
3. _____

Other Factors:

1. _____
2. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>-0-</u>	_____		<u>-0-</u>	_____
	_____	_____		_____	_____
	_____	_____		_____	_____
	_____	_____		_____	_____

Probable Cause of Casualty:

1. _____
2. _____

Property Losses:

Railroad: \$472,000
Non-Railroad: -0-

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #DCAB4MR015

84-0132

REPORTED BY:
CHICAGO TRANSIT AUTHORITY

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
CHICAGO, ILLINOIS		1700 CDT	08/17/84	CLEAR	DAY/1000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	CHICAGO TRANSIT AUTHORITY	PASSENGER TRANSIT	SOUTH	EN ROUTE		MAIN 002
2	CHICAGO TRANSIT AUTHORITY	PASSENGER TRANSIT	SOUTH	EN ROUTE		MAIN 002

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

SOUTHBOUND CHICAGO TRANSIT AUTHORITY EIGHT-CAR "A" TRAIN NO. 135 LEFT THE MONTROSE AVENUE STATION AND AS IT SLOWLY ASCENDED A 3.1-PERCENT GRADE, THE MOTORMAN SAW "YELLOW DYNAMIC" BRAKE LIGHTS ILLUMINATED ON THE SECOND AND SEVENTH CARS. THE TRAIN ROLLED TO A STOP, AND THE MOTORMAN SECURED THE CAB AND WENT BACK TO CUTOUT THE BRAKES ON THE SECOND CAR. WHILE THE MOTORMAN WAS OUT OF THE CAB, TRAIN NO. 135 BEGAN TO ROLL BACKWARD DOWN THE GRADE. THE MOTORMAN RAN BACK TO THE CAR AND ATTEMPTED TO STOP THE TRAIN; HOWEVER, HE DID NOT STOP IT. TRAIN NO. 135, MOVING AT ABOUT 20 MPH, STRUCK CHICAGO TRANSIT AUTHORITY EIGHT-CAR "B" TRAIN NO. 143, WHICH WAS STANDING JUST SOUTH OF THE MONTROSE STATION. ONE PASSENGER WAS KILLED, AND 46 PASSENGERS AND 3 CREWMEMBERS WERE INJURED.

----- PROBABLE CAUSES -----
1. HUMAN FAILURE - SEE NTSB REPORT RAR-85-11 FOR PROBABLE CAUSE

----- CASUALTIES -----			----- PROPERTY LOSSES -----	
	FATALITIES	INJURIES	RAILROAD	NON-RAILROAD
EMPLOYEES ON DUTY	0	3		
PASSENGERS	1	46	\$ 300,000	\$ 0

----- PROBABLE CAUSES OF CASUALTIES -----
1. THROWN FROM SEAT/POSITION IN COLLISION/DERAILMENT
2. COLLAPSE OF STRUCTURE (TRAIN)

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 8NYC05FR012

85-0045

REPORTED BY:
DELAWARE AND HUDSON RY CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
SANITARIA SPRINGS, NEW YORK		2018 EST	03/22/85	CLOUDY	DARK/0500 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	DELAWARE AND HUDSON RY CO.	FREIGHT	SOUTH	EN ROUTE		MAIN 001

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

FREIGHT TRAIN CX01, CONSISTING OF 5 LOCOMOTIVE UNITS AND 101 CARS, HAD THE 25TH THROUGH 64TH CAR DERAIL WHILE MOVING AT 49 MPH. THE TRAIN WAS ON A DESCENDING GRADE AND IN A SERIES OF 4-DEGREE CURVES AT THE TIME. THE ENGINEER WAS A YARD ENGINEER WITH LITTLE ROAD EXPERIENCE. THE TRAIN WAS ACCELERATING DOWN THE GRADE WHILE THE ENGINEER MADE AIR BRAKE REDUCTION IN SMALL INCREMENTS. THE SMALL AIR REDUCTIONS RESULTED IN A FALSE GRADIENT IN THE BRAKE PIPE AND RELEASED THE BRAKES IN THE REAR OF THE TRAIN. THE TRAIN THEN WENT FASTER WHILE THE ENGINEER WAS TRYING TO SLOW IT. NONE OF THE CREWMEMBERS HAD ENOUGH TRAIN HANDLING EXPERIENCE TO REALIZE WHAT WAS HAPPENING. ONE OF THE CARS THEN DERAILED IN A 4-DEGREE CURVE.

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

1. HUMAN FAILURE - TO PROPERLY CONTROL TRAIN BRAKES ON GRADE
2. INADEQUATE TRAINING IN PERFORMING NECESSARY TRAIN OPERATION PROCEDURE
3. FAILURE TO CONTROL SPEED OF TRAIN

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,030,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

85-54

Reported by:	Denver and Rio Grande Western Railroad		Brief of Railroad No.: DCA-85-R-0005		
Location:	Granby, Colorado	Time:	1925 MST	Date:	April 16, 1985
				Weather:	Clear
				Visibility:	Dark/1,000 feet
Trains:	Railroad:	Class:	Direction:	Operating Phase:	Track No.:
1	Antrak	Passenger	East	Enroute	Main
2					

Accident Description:

Antrak Passenger Train No. 6, the California Zephyr, traveling on the Denver & Rio Grande Western Railroad Company, Colorado Division main track, derailed at Mile Post 70.3, 5 1/2 miles east of Granby, Colorado. The derailment resulted when two locomotives and the first 4 coaches of a 12-coach train derailed at a 20 foot deep and 180 foot long roadway embankment slide. The two locomotive units and four coaches were heavily damaged when the first two coaches (baggage cars) landed on top of the locomotive units. In addition, 420 feet of the main track structure was destroyed and approximately 3,500 cubic yards of sub-grade and ballast were washed away by the Fraser River.

Probable Cause: 1. Track embankment slide because of excessive soil saturation from rapid snow melt, underground water and diverted water from a plugged under track culvert.

2.

Other Factors:

1.

2.

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	-0-			14	Passengers
				2	Crewmembers

Probable Cause of Casualty:

1. Striking injurious environment (seats, baggage, protuberances)
2. Thrown from seat in derailment

Property Losses:

Railroad:	\$2,920,000
Non-Railroad:	

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0019

BRIEF OF RAILROAD ACCIDENT 9FTW85FR006

REPORTED BY:
KANSAS CITY SOUTHERN RY CO.

-----LOCATION-----		---TIME--	---DATE--	WEATHER	-----VISIBILITY-----	
KARNACK, TEXAS		0045 CST	01/22/85	CLEAR	DARK/2000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	KANSAS CITY SOUTHERN RY CO.	FREIGHT UNIT TRAIN	WEST	EN ROUTE		MAIN 000

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

FREIGHT TRAIN NO. KCM-12-11, CONSISTING OF 5 LOCOMOTIVE UNITS AND 112 CARS, HAD 21 CARS DERAIL WHILE MOVING 32 MPH. THE TRAIN HAD JUST GOT TO THE BOTTOM OF A LONG DESCENDING GRADE. INVESTIGATION REVEALED A TRANSVERSE BREAK THROUGH THE WELD OF A WELDED RAIL JOINT. A RAILROAD OFFICIAL STATED THEY HAD SEVERAL BROKEN RAILS AND BROKEN JOINT BARS IN THE AREA OVER THE PREVIOUS 4 MONTHS. SOME OF THE RAILS IN THE WELDED RAIL STRINGS HAD BEEN MANUFACTURED IN 1929.

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

1. BROKEN RAIL
2. FAILURE OF RAIL - RAIL BROKE AT FAULTY WELDED JOINT

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 772,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

84-0082

BRIEF OF RAILROAD ACCIDENT @NYC84FR021

REPORTED BY:
LONG ISLAND RR

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
NEW YORK CITY, NEW YORK		2230 EST	04/10/84	CLEAR	DARK/1000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	LONG ISLAND RR	PASSENGER COMMUTER		WEST	EN ROUTE	YARD 004

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

COMMUTER TRAIN NO. 3075, CONSISTING OF 4 SELF-PROPELLED COMMUTER PASSENGER CARS, HAD THE REAR CAR DERAIL JUST AFTER IT DEPARTED FAR ROCKAWAY TERMINAL. THE TRAIN WAS PASSING OVER A FACING POINT SWITCH AT THE TIME. THE REAR CAR STRUCK STANDING CARS IN THE SIDETRACK AND DERAILED THEM. ABOUT 45 MINUTES BEFORE THE ACCIDENT, ANOTHER TRAIN HAD PASSED OVER THE SWITCH WITH NO PROBLEMS. INVESTIGATION REVEALED THE THROW ARM OF THE SWITCH HAD BEEN LEFT UNSECURED.

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

1. HUMAN FAILURE - SWITCH NOT PROPERLY SECURED, OPENED UNDER TRAIN

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
6 250,000	9 0

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

Reported by: Metro-North Commuter Railroad Brief of Railroad No.: NYC8472018

Location: Yonkers, New York Time: 0940 EST Date: 03/16/84 Weather: Clear Visibility: Day/600 FT

Train:	Railroad:	Class:	Direction:	Operating Phase:	Track No.:
1	<u>Metro-North Commuter Railroad</u>	<u>Light engine</u>	<u>North</u>	<u>En route</u>	<u>1</u>
2	<u>Metro-North Commuter Railroad</u>	<u>Passenger commuter</u>	<u>North</u>	<u>Standing</u>	<u>1</u>

Accident Description: Northbound light engine No. 804 struck the rear of standing deadhead equipment train No. 2017 on main track No. 1 on the Hudson Line 1.21 miles north of Glenwood Interlocking. Two cars on train No. 2017 were derailed. Six crewmembers on the two trains were treated for minor injuries and released. The three member crew on engine 804 departed Mott Haven Interlocking with the long hood forward. The crew passed a stop and proceed signal at 30 mph. The engineer attempted to stop the engine by applications of the independent and automatic brakes, however, the engine failed to stop before striking the rear of train No. 2017.

Probable Cause: 1. Failure of engineer of 804 to comply with signals and control speed of his train accordingly.
2. _____

Other Factors: 1. Failure of conductor of 804 to monitor train operation.

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>- 0 -</u>	_____		<u>- 0 -</u>	_____
	_____	_____		_____	_____

Probable Cause of Casualty:

1. _____
2. _____

Property Losses:

Railroad: \$65,000
Non-Railroad: _____

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

84-154

Reported by: Metro-North Commuter Railroad Brief of Railroad No.: NYC-85-MR001
 Location: Stamford, Connecticut Time: 0430 EDT Date: 10/17/84 Weather: Cloudy Visibility: Dark/1,000 ft.
 Train: Railroad: Class: Direction: Operating Phase: Track No.:
 1 Amtrak Work East En route 2
 2 Consolidated Rail Corp. Local Freight East Standing 2
 3 _____ _____ _____ _____ _____

Accident Description: An Amtrak work train, No. MW-2, struck the rear end of a standing local freight train, Conrail No. WNCH-4. Two locomotive units of MW-2 and the caboose of WNCH-4 were derailed. MW-2 consisted of 2 electric locomotive units, 18 maintenance of way cars and a caboose. WNCH-4 consisted of one locomotive unit, 9 freight cars and a caboose. Three Amtrak crewmembers and 4 Conrail crewmembers were injured, most with minor injuries. WNCH-4 had stopped to get instructions for handling a car that had an excess dimension load. MW-2 was moving on the same track at a speed of 40 mph, but should have been moving at restricted speed (not to exceed 15 mph). The engineer saw WNCH-4 on the track in front of him and made an emergency brake application. The caboose of WNCH-4 was destroyed in the collision, but no crewmembers were in it at the moment of impact. The engineer of MW-2 had gone for over 20 hours without sleep at the time of the accident.

Probable Cause:

1. Failure of the engineer due to possible fatigue, and of the conductor due to unfamiliarity with
2. riding on the head end, to operate train MW-2 at the speed required by signal indication.
3. _____

Other Factors:

1. _____
2. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>-0-</u>	_____		<u>7</u>	<u>Employees on duty</u>
	_____	_____		_____	<u>(All minor except one)</u>
	_____	_____		_____	_____
	_____	_____		_____	_____

Probable Cause of Casualty:

1. Thrown from position by collision
2. _____

Property Losses:
 Railroad: \$215,000
 Non-Railroad: -0-

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 6NYC05FR005

84-0165

REPORTED BY:
METRO-NORTH COMMUTER RAILROAD

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----		
SOUTH NORWALK, CONNECTICUT		1600 EST	11/18/84	CLOUDY	DAY/1000 FT		
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----		-----TRACK/NO-----
1	AMTRAK	PASSENGER		EAST	EN ROUTE		MAIN 004

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

AMTRAK PASSENGER TRAIN NO. 296, CONSISTING OF AN AEM-7 ELECTRIC LOCOMOTIVE AND 5 PASSENGER CARS, HAD THE LOCOMOTIVE AND 4 CARS DERAIL ON THE WALK MOVABLE BRIDGE ON THE METRO-NORTH COMMUTER RAILROAD, NEW HAVEN LINE. TRACK AND BRIDGE WORK IN PROGRESS AT THE TIME REQUIRED THE DISMANTLING OF THE BRIDGE INTERLOCKING SYSTEM. A SIGNAL MAINTAINER WAS KEPT ON DUTY AT THE BRIDGE DURING THIS TIME WHENEVER THE BRIDGE WAS SWUNG OPEN FOR BOAT TRAFFIC. HIS DUTIES INCLUDED CHECKING THE MITRE RAILS WHEN THE BRIDGE WAS CLOSED TO BE SURE ALL RAILS WERE LINED UP AND IN PLACE BEFORE TRAINS RESUMED CROSSING THE BRIDGE. SHORTLY BEFORE THE ACCIDENT, THE BRIDGE HAD BEEN OPENED TO ALLOW A SAILBOAT TO PASS THROUGH. THE BRIDGE WAS THEN CLOSED AND THE BRIDGE OPERATOR REPORTED TO THE TOWER THAT IT WAS ALL RIGHT TO RUN TRAINS ACROSS THE BRIDGE. ONE OF THE MITRE RAILS ON THE BRIDGE WAS NOT PROPERLY IN PLACE, BUT NEITHER THE SIGNAL MAINTAINER NOR THE BRIDGE OPERATOR SAW IT UNTIL THEY HEARD THE TRAIN DERAIL. THE SPEED OF THE TRAIN WAS 24 MPH.

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

1. HUMAN FAILURE - PROTECTION NOT PROVIDED FOR INTERLOCKING REPAIRS
2. INADEQUATE SUPERVISION OF TRAIN OPERATION PROCEDURE
3. FAILURE TO SUPERVISE PERFORMANCE OF FED. REGULATIONS FOR INSPECTION & MAINTENANCE OF SYSTEMS, DEVICES AND APPLIANCES 234
4. FAILURE TO PERFORM FED. REGULATIONS FOR INSPECTION & MAINTENANCE OF SYSTEMS, DEVICES AND APPLIANCES 236

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 114,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #DCAB5HRO08

85-0087

REPORTED BY:
METROPOLITAN DADE COUNTY TRANSIT AGENCY

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
MIAMI, FLORIDA	2335 EDT	06/26/85	CLEAR	DARK/0480 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	METROPOLITAN DADE COUNTY TRANSIT AGENCY	PASSENGER TRANSIT	NORTH	EN ROUTE	MAIN 001
2	METROPOLITAN DADE COUNTY TRANSIT AGENCY	PASSENGER TRANSIT	NORTH	EN ROUTE	MAIN 001

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

METRO-DADE TRANSPORTATION ADMINISTRATION (MDTA) NONREVENUE TEST TRAIN NO. 172-171 STRUCK THE REAR OF MDTA REVENUE TRAIN, NO. 141-142, WHICH WAS STOPPED ON TRACK 2 ABOUT 1,927 FEET SOUTH OF THE NORTHSIDE STATION INTERLOCKING IN MIAMI, FLORIDA. NEITHER TRAIN WAS DERAILED. TEST TRAIN NO. 172-171 WAS RETURNING NORTHBOUND AFTER COMPLETING A SOUTHBOUND TEST RUN. TWELVE PASSENGERS AND 4 MDTA EMPLOYEES WERE TAKEN TO NEARBY HOSPITALS WHERE THEY WERE TREATED AND RELEASED. NO. 172-171 WAS BEING OPERATED WITH THE AUTOMATIC TRAIN PROTECTION SYSTEM BYPASSED. THE TRAIN HAD KNOWN EQUIPMENT DEFECTS AND WAS BEING TESTED ON THE SAME TRACK WITH REVENUE PASSENGER TRAINS. LABORATORY TESTS TAKEN 15 HOURS AFTER THE ACCIDENT REVEALED THE PRESENCE OF COCAINE, MARIJUANA, AND VALIUM IN THE TRAIN OPERATOR, BUT THE TIME BETWEEN THE ACCIDENT AND THE TAKING OF BLOOD AND URINE SAMPLES COMPLICATES THE INTERPRETATION OF THE RESULTS.

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

1. HUMAN FAILURE - SEE NYSS REPORT RAR-84-3 FOR PROBABLE CAUSE
2. USE OF DRUGS

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	0	4
PASSENGERS	0	10
PERSONS	0	2

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

RAILROAD	NON-RAILROAD
\$ 1,400,000	0

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

1. STRIKING INJURIOUS ENVIRONMENT

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 9CHI23FR019

85-0044

REPORTED BY:
MISSOURI PACIFIC RR CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
KANSAS CITY, KANSAS		0145 CDT	04/30/85	CLOUDY	DARK/0300 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	MISSOURI PACIFIC RR CO.	CUT OF CARS		WEST	MAKEUP/BREAKUP	YARD 018

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

YARD TRAIN YU-72 WAS SWITCHING CARS IN INDUSTRIAL SIDETRACKS WHEN A BRAKEMAN FELL FROM A MOVING BOXCAR AND WAS FATALLY INJURED. THE LOCOMOTIVE AND 3 CARS WERE BACKING INTO TRACK NO. 18. THE LOCOMOTIVE SLOWED, ANOTHER BRAKEMAN ON THE LOCOMOTIVE UNCOUPLED THE 3 CARS FROM THE LOCOMOTIVE, AND THE CUT OF CARS ROLLED ON DOWN THE SIDETRACK WITH THE FIRST BRAKEMAN RIDING ON THE FIRST CAR. HE WAS TO USE THE HANDBRAKE TO SLOW THE CARS AND STOP THEM. UNKNOWN TO THE CREW, HE FELL OFF THE CAR AND WAS RUN OVER. THEY MOVED THE TRAIN TO ANOTHER LOCATION AND CAME BACK TO TRACK NO. 18 ABOUT 10 MINUTES LATER, THEN FOUND HIS BODY ABOUT 200 FEET FROM THE SWITCH. THE CUT OF CARS HAD ROLLED 555 FEET BEYOND THAT LOCATION. NO DEFECTS WERE FOUND ON THE CAR HE FELL FROM.

----- PROBABLE CAUSES -----	----- OTHER FACTORS -----
1. INDIVIDUAL UNDERTOOK RISKS, PROCEDURAL DEVIATIONS CONDONED BY MANAGEMENT	1. WEATHER
2. HUMAN FAILURE - FELL WHILE SETTING HANDBRAKE ON MOVING CAR	

----- CASUALTIES -----	----- PROPERTY LOSSES -----		
FATALITIES	INJURIES	NONE	
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 #FTW85FR014

85-0073

REPORTED BY:
MISSOURI PACIFIC RR CO.

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
EASTLAND, TEXAS	1000 CDT	05/24/85	CLEAR	DAY/5000 FT

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

***** ACCIDENT DESCRIPTION *****
 FREIGHT TRAIN NO. EF2-23, CONSISTING OF 4 LOCOMOTIVE UNITS AND 99 CARS, WAS STRUCK BY A TRUCK TRACTOR/TANK SEMI-TRAILER AT A GRADE CROSSING NEAR THE DOWNTOWN AREA OF EASTLAND, TEXAS. THE TRAIN WAS MOVING ABOUT 50 MPH AND THE TRUCK WAS ESTIMATED TO BE MOVING 35-45 MPH WHEN THE TRUCK HIT THE SECOND UNIT OF THE LOCOMOTIVE. THE THIRD AND FOURTH LOCOMOTIVE UNITS AND THE FIRST 27 CARS DERAILED. A TANK CAR OF L. P. GAS EXPLODED, A SECOND L. P. GAS TANK BURNED, 2 CARS OF SULFURIC ACID SPILLED, AND A TANK CAR OF HYDROGEN FLUORIDE GAS LEAKED. THIS RESULTED IN A ONE MILE RADIUS EVACUATION OF 1300 PEOPLE, INCLUDING THE DOWNTOWN BUSINESS DISTRICT OF EASTLAND. FOURTEEN PEOPLE WERE TREATED AT A HOSPITAL, 7 OF WHOM WERE ADMITTED. THE CROSSING WAS PROTECTED WITH FLASHING LIGHTS AND BELLS, AND THE TRAIN WHISTLE WAS BLOWING AND WITNESSES STATED THE TRUCK DRIVER MADE NO ATTEMPT TO STOP AT THE GRADE CROSSING. TESTS REVEALED THAT TRUCK CAB NOISE WAS AT A LEVEL THAT WOULD MAKE THE TRAIN WHISTLE INAUDIBLE.

----- PROBABLE CAUSES -----
 1. HUMAN FAILURE - DRIVER IGNORED WARNING LIGHTS; TRAIN INAUDIBLE

----- OTHER FACTORS -----
 1. FAILURE OF PERSONNEL TO DETECT SIGNAL
 2. FAILURE OF MOTORIST TO STOP AT PROTECTED GRADE CROSSING

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	0	2
PUBLIC NOT ON RR PROPERTY	0	4
PERSONS	0	1

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

RAILROAD	NON-RAILROAD
\$ 2,364,000	\$ 100,000

----- PROBABLE CAUSES OF CASUALTIES -----
 1. STRUCK TRAIN
 2. EXPLOSION/DETONATION

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

84-78

Reported by: New York City Transit Authority Brief of Railroad No.: NYC-84-F-R019
 Location: New York City, New York Time: 0950 EST Date: 04/06/84 Weather: N/A Visibility: Tunnel/400 ft.
 Train: 1 New York City Transit Authority Class: Passenger transit Direction: North Operating Phase: En route Track No.: 1
 2 _____
 3 _____

Accident Description: The train operator of a subway train on the IRT line reported by telephone to the dispatcher that he saw an ARC and heard a loud noise in the tunnel north of the Brooklyn Bridge Station. The dispatcher cut off the third rail power, which stalled 2 trains in the tunnel. About 500 passengers were evacuated via an emergency exit to the street when smoke filled the tunnel area due to a burning third rail feeder cable.

Probable Cause: 1. Mud splashed onto cable connector, resulting in short circuit
 2. _____
 3. _____
 Other Factors: 1. Fouled ballast
 2. _____
 3. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>0</u>	_____		<u>21</u>	<u>Employees on duty (minor)</u>
	_____	_____		<u>18</u>	<u>Passengers (minor)</u>
	_____	_____		_____	_____
	_____	_____		_____	_____

Probable Cause of Casualty: 1. Smoke inhalation
 2. _____
 3. _____

Property Losses:
 Railroad: \$1,000
 Non-Railroad: _____

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

84-84

Reported by: New York City Transit Authority Brief of Railroad No.: NYC-84-F-R022
 Location: Queens, New York Time: 0325 EST Date: 04/17/84 Weather: Clear Visibility: Dark/1,000 ft.
 Train: Class: Direction: Operating Phase: Track No.:
 1 New York City Transit Authority Passenger Transit North Loading/Unloading 4
 2 _____
 3 _____

Accident Description: A fire started under the seats on the fifth car of an eight car subway train on the "A" line at Rockaway Boulevard Station. The interior of the car was destroyed. There was no fire extinguisher on the train. No passengers were in the car at the time, but 4 youths had got off the train at Broad Channel Station shortly before the fire was discovered.

Probable Causes:
 1. Vandalism
 2. _____
 3. _____
 Other Factors:
 1. _____
 2. _____
 3. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>-0-</u>	_____		<u>1</u>	<u>Firefighter</u>
	_____	_____		_____	_____
	_____	_____		_____	_____
	_____	_____		_____	_____

Probable Cause of Casualty:
 1. Smoke inhalation
 2. _____
 3. _____

Property Losses:
 Railroad: \$250,000
 Non-Railroad: _____

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

84-99

Reported by: New York City Transit Authority Brief of Railroad No.: NYC-84-F-R025
 Location: New York City, New York Time: 1319 EDT Date: 06/10/84 Weather: N/A Visibility: Tunnel
 Train: 1 New York City Transit Authority Class: Passenger Transit Direction: North Operating Phase: In route Track No.: 2
 2 _____
 3 _____

Accident Description: Subway train No. 3 (7th Avenue Express), consisting of 10 subway cars, was moving north on the IRT line in Manhattan and had just departed the 96th Street Station when a fire broke out under the 4th car. The third rail power was cut off, stranding the train and another train in the tunnel. About 180 passengers were evacuated from the 2 trains through an emergency exit to the street above. Thick smoke in the tunnel made evacuation and firefighting difficult.

Probable Cause: 1. Failure of group switch box generated high temperatures
 2. _____
 3. _____
 Other Factors: 1. _____
 2. _____
 3. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>-0-</u>	_____		<u>12</u>	<u>Employees on duty (minor)</u>
	_____	_____		<u>11</u>	<u>Passengers (minor)</u>
	_____	_____		_____	_____
	_____	_____		_____	_____

Probable Cause of Casualty: 1. Smoke inhalation
 2. _____
 3. _____

Property Losses:
 Railroad: \$800,000
 Non-Railroad: _____

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0NYC85FR015

85-0058

REPORTED BY:
NEW YORK CITY TRANSIT AUTHORITY

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
NEW YORK CITY, NEW YORK	0550 EST	04/23/85	N/A	TUNNEL/0100 FT

TRAIL	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	NEW YORK CITY TRANSIT AUTHORITY	PASSENGER TRANSIT	SOUTH	EN ROUTE	MAIN 003

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

A SOUTHBOUND "D" SUBWAY TRAIN, CONSISTING OF 10 CARS, STRUCK AND FATALLY INJURED A SIGNALMAN SOUTH OF THE 167TH STREET STATION. THE SIGNALMAN WAS SITTING BY THE TRACK AND THE ENGINEER SAID HE "SAW FEET ON THE ROADBED AHEAD, AND PUT THE TRAIN BRAKES INTO EMERGENCY." THE SIGNALMAN WAS PART OF A TWO-MAN SIGNAL MAINTAINER TEAM WORKING WITH A TRACK TEAM THAT WAS REPLACING 3 SIGNAL RAILS IN THE SUBWAY TUNNEL. THE SIGNALMAN WAS TIEING DOWN SIGNAL ARMS DUE TO A SIGNAL PROBLEM JUST PRIOR TO THE ACCIDENT.

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

1. FAILURE OF PERSON TO RECOGNIZE POSITION ON TRACK STRUCTURE/RIGHT-OF-WAY AS HAZARDOUS
2. HUMAN FAILURE - SIGNALMAN SAT TOO CLOSE TO TRACK

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	1	0

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

NONE

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

1. STRUCK BY TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0020

BRIEF OF RAILROAD ACCIDENT 0CH185FR009

REPORTED BY:
NORFOLK AND WESTERN RY CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
NEW LENOX, ILLINOIS		0145 CST	01/26/85	CLEAR	DARK/1000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---	
1	NORFOLK AND WESTERN RY CO.	FREIGHT	SOUTH	EN ROUTE	MAIN	001

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

FREIGHT TRAIN 6LS-17, CONSISTING OF 6 LOCOMOTIVE UNITS AND 29 CARS, HAD 18 CARS DERAIL IN A CURVE WHILE MOVING 50 MPH. THREE TANK CARS WERE DERAILED BUT DID NOT LOSE ANY CONTENTS. DURING THE CLEARING OPERATION, 250 RESIDENTS WERE EVACUATED FROM THE AREA FOR 48 HOURS AS A PRECAUTIONARY MEASURE. DERAILED EQUIPMENT STRUCK AND DESTROYED A 97-FOOT GIRDER BRIDGE. SOME NEARBY BUILDINGS WERE ALSO DAMAGED OR DESTROYED. EVIDENCE IN RAIL JOINTS INDICATED JOINT BARS HAD WORKED LOOSE OR WERE MISSING.

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

1. FAILURE OF JOINT BAR - JOINT BARS EITHER LOOSE OR MISSING

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 625,000	\$ 40,000

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0008

BRIEF OF RAILROAD ACCIDENT 0ATL05FR006

REPORTED BY:
SEABOARD COAST LINE RR

-----LOCATION-----		---TIME---	---DATE---	WEATHER	-----VISIBILITY-----	
GREENVILLE, SOUTH CAROLINA		1555 EST	01/09/85	CLEAR	DAY/0200 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	SEABOARD COAST LINE RR	FREIGHT	EAST	EN ROUTE		MAIN 001

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

FREIGHT TRAIN EXTRA 6685 EAST, CONSISTING OF ONE LOCOMOTIVE UNIT AND 10 CARS, STRUCK A GREENVILLE TRANSIT AUTHORITY BUS AT A GRADE CROSSING. THE BUS DRIVER AND 8 PASSENGERS HAD MINOR INJURIES AND ANOTHER PASSENGER WAS HELD FOR OBSERVATION. THE BUS DRIVER HAD STOPPED AT THE CROSSING, THEN STARTED ACROSS. HE THEN HEARD THE TRAIN WHISTLE, STOPPED THE BUS, AND TRIED TO PULL IT OFF THE CROSSING. HIS VISION OF THE CROSSING WARNING LIGHTS WAS OBSCURED BY THE SUN VISOR BEING DOWN. THE ENGINEER HAD PLACED THE TRAIN BRAKES IN EMERGENCY APPLICATION. THE LOCOMOTIVE STRUCK THE RIGHT FRONT CORNER OF THE BUS AND DISLOOGED THE DRIVER FROM HIS SEAT DUE TO NOT WEARING THE SEATBELT. THE BUS THEN ROLLED BACKWARD AND STRUCK A CONCRETE BASE OF A SIGN. THE BUS OCCUPANTS WERE THROWN FROM THEIR SEATS DURING BOTH THE IMPACTS WITH THE TRAIN AND THE CONCRETE SIGN BASE. THE TRAIN SPEED WAS ABOUT 15 MPH, AND IT DID NOT DERAIL. THE BUS WAS CARRYING 17 PASSENGERS AT THE TIME.

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

1. HUMAN FAILURE - BUS DRIVER STOPPED ON GRADE CROSSING

----- CASUALTIES -----

PUBLIC ON RR PROPERTY	FATALITIES		INJURIES	
	0		1	

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

RAILROAD		NON-RAILROAD	
\$	4,000	\$	40,000

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

DATA NOT AVAILABLE

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #DCAB5HR003

85-0034

REPORTED BY:
SEABOARD COAST LINE RR

-----LOCATION-----		---TIME--	---DATE--	WEATHER	-----VISIBILITY-----	
JACKSON, SOUTH CAROLINA		0715 EST	02/23/85	CLEAR	DAWN OR DUSK/1000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	SEABOARD COAST LINE RR	FREIGHT	WEST	EN ROUTE		MAIN 001

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

FREIGHT TRAIN F-690, CONSISTING OF 5 LOCOMOTIVE UNITS AND 149 CARS, DERAILED WHILE TRAVELING ABOUT 53 MPH. THE TRAIN STRUCK A CUSHION UNIT THAT HAD DROPPED FROM A CUSHION-UNDERFRAME BOXCAR IN A TRAIN WHICH HAD PASSED THROUGH JACKSON ABOUT 5 HOURS EARLIER. EIGHT OF THE 27 DERAILED WERE TANK CARS LADEN WITH CYCLOHEXANE. THE TANK CARS DID NOT HAVE HEAD SHIELD PROTECTION. CYCLOHEXANE WAS RELEASED THROUGH TANK HEAD PENETRATIONS AND WAS IGNITED IMMEDIATELY. ALTHOUGH NO FATALITIES OR INJURIES RESULTED FROM THE ACCIDENT, RESIDENCES WITHIN A 1-MILE RADIUS OF THE SITE WERE EVACUATED.

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

1. HUMAN FAILURE - SEE NTSB REPORT RAR-85-12 FOR PROBABLE CAUSE

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,142,000	\$ 150,000

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 08CA05FR004

85-0035

REPORTED BY:
SEABOARD COAST LINE RR

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
ROBBINS, SOUTH CAROLINA	0750 EST	02/25/85	CLEAR	DAWN OR D'K/1330 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SEABOARD COAST LINE RR	FREIGHT	WEST	EN ROUTE	MAIN 001
2	SEABOARD COAST LINE RR	CUT OF CARS	WEST	SETOUT/PICKUP NOT IN YARD	MAIN 001

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

FREIGHT TRAIN F-481 STRUCK THE REAR OF STANDING CARS THAT WERE LEFT THERE FROM A TRAIN 2 DAYS BEFORE BECAUSE OF THE MAIN TRACK BLOCKAGE AT JACKSON, S.C. FROM AN EARLIER DERAILMENT. THREE CREWMEMBERS JUMPED OFF THE TRAIN WHEN THEY REALIZED A COLLISION WAS IMMINENT AND RECEIVED SERIOUS INJURIES. THEY HAD BEEN DISPATCHED THROUGH THE AREA, UNAWARE OF THE CARS LEFT STANDING ON THE MAIN TRACK. NO. F-481 CONSISTED OF 2 LOCOMOTIVE UNITS AND 97 CARS. WHEN THE CREW FIRST SAW THE STANDING CARS AHEAD, THEIR TRAIN WAS TRAVELING ABOUT 40 MPH AND THE ENGINEER PUT THE BRAKES INTO EMERGENCY APPLICATION. THE LEAD LOCOMOTIVE UNIT DERAILED AND THE CABOOSE AND ONE CAR OF THE STANDING CUT OF CARS ALSO DERAILED.

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

1. HUMAN FAILURE - SEE NTSB REPORT RAR-85-12 FOR PROBABLE CAUSE

----- CASUALTIES -----

EMPLOYEES ON DUTY	FATALITIES INJURIES		----- PROPERTY LOSSES -----	
			RAILROAD	NON-RAILROAD
	0	3	\$ 66,000	\$ 0

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

1. JUMPED FROM TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0041

BRIEF OF RAILROAD ACCIDENT #FTMSFR014

REPORTED BY:
SEABOARD COAST LINE RR

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
BRIFTON, FLORIDA	0255 EST	04/25/85	CLOUDY	DARK/0400 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SEABOARD COAST LINE RR	FREIGHT	SOUTH	EN ROUTE	MAIN 001

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

FREIGHT TRAIN J-609-24, CONSISTING OF 5 LOCOMOTIVE UNITS AND 139 CARS, HAD 20 CARS DERAIL WHILE MOVING 40 MPH. THE THIRD CAR IN THE TRAIN WAS A HEAVY PILE DRIVER CAR WITH A SHORT WHEELBASE AND HAD A SPEED RESTRICTION REQUIREMENT OF 25 MPH. A TRAIN ORDER WAS NOT ISSUED TO THE TRAIN CREW REGARDING IT, SO THE CREW WAS UNWARE OF THE CAR'S RESTRICTION. THE PILE DRIVER CAR WAS THE FIRST CAR TO DERAIL. IT STRUCK A BRIDGE THAT CARRIES INTERSTATE 10 OVER THE RAILROAD AND KNOCKED DOWN 6 BRIDGE PILINGS. THIS REQUIRED THE EASTBOUND LANES TO BE CLOSED FOR SEVERAL DAYS FOR REPAIRS.

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

1. HUMAN FAILURE - RESTRICTED EQUIPMENT BILLED WITHOUT 25 MPH ORDER
2. INADEQUATE SUPERVISION OF TRAIN OPERATION PROCEDURE

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 391,000	\$ 100,000

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #FTW85FR019

85-0089

REPORTED BY:
SEABOARD COAST LINE RR

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
RIDGELAND, SOUTH CAROLINA		0050 EDT	06/27/85	CLOUDY	DARK/0800 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SEABOARD COAST LINE RR	FREIGHT		SOUTH	EN ROUTE	MAIN 001

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

A FREIGHT TRAIN CONSISTING OF 3 LOCOMOTIVE UNITS AND 48 PIGGY-BACK CARS HAD THE 14TH CAR DERAIL WHILE MOVING AT 70 MPH. THE TRAIN WENT ABOUT 3 1/2 MORE MILES WHEN IT CAME TO A FACING POINT SWITCH. THE DERAILED CAR STRUCK THE SWITCH AND 24 LOADED PIGGY-BACK CARS DERAILED. A BURNED OFF AXLE JOURNAL WAS FOUND ON THE FIRST CAR THAT DERAILED. A HOT BOX DETECTOR HAD REGISTERED A 6 MM READING OVER 11 MILES BEFORE THE DERAILMENT, BUT THE HOT BOX DETECTOR WAS SET TO TRIGGER AT A READING OF 8 MM. A LABORATORY ANALYSIS OF THE MATE BEARING REVEALED IT HAD BEEN IMPROPERLY ASSEMBLED.

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

1. OVER HEATED AXLE JOURNAL
2. FAILURE OF ROLLER BEARING - IMPROPERLY REMANUFACTURED

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,040,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
Washington, D.C. 20594

85-12

Reported by: Southeastern Pennsylvania Transp. Auth. Brief of Railroad No.: NYC-85-FR007

Location: Jenkintown, Pennsylvania Time: 2242 EST Date: 01/16/85 Weather: Clear Visibility: Dark/1300 ft.

Train:	Class:	Direction:	Operating Phase:	Track No.:
<u>1 Southeastern Pennsylvania Transp. Auth.</u>	<u>Passenger</u>	<u>South</u>	<u>Movement in yard</u>	<u>2</u>
<u>2 Southeastern Pennsylvania Transp. Auth.</u>	<u>Commuter</u>	<u>North</u>	<u>Enroute</u>	<u>2</u>
<u>3</u>	<u>Passenger</u>			

Accident Description:

Passenger Train No. 881, consisting of 5 self-propelled cars, ran away unattended from a sidetrack, went through a switch onto the main track, and struck passenger train No. 360 that was standing at a signal 1300 ft. from where No. 881 had been standing. No. 881 had been standing on the sidetrack and the crew could not get the brakes to release on one of the cars. The crew got out and worked on a control box under the car. By tapping on the box, they got the brakes to release and the train then ran away with nobody aboard. The engineer of No. 360 saw No. 881 coming toward him and he ran into the passenger compartment where he warned the passengers to brace themselves. The speed of No. 881 was estimated at 20-30 mph.

Probable Cause: 1. Failure of engineer of Train No. 881 to properly secure train before leaving the train.
2. _____
3. _____

Other Factors: 1. _____
2. _____
3. _____

Fatalities:	Number:	Description:	Injuries:	Number:	Description:
	<u>-0-</u>			<u>6</u>	<u>Passenger - hospitalized.</u>
				<u>21</u>	<u>Passenger - minor</u>
				<u>3</u>	<u>Employees on duty - minor</u>

Probable Cause of Casualty:

1. Thrown from seat/position in collision
2. _____
3. _____

Property Losses:
Railroad: \$750,000
Non-Railroad: -0-

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0088

BRIEF OF RAILROAD ACCIDENT 0NYCBSFR019

REPORTED BY:
SE PENNSYLVANIA TRANSPORTATION AUTHORITY

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
PHILADELPHIA, PENNSYLVANIA	1610 EDT	06/27/85	CLEAR	DAY/1000 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SE PENNSYLVANIA TRANSPORTATION AUTHORITY	PASSENGER COMMUTER	NORTH	EN ROUTE	BRANCH 001

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

THE CONDUCTOR ON A COMMUTER TRAIN WAS FATALLY INJURED WHEN HE STRUCK A HIGH STATION PLATFORM AS THE TRAIN WAS PASSING THE PLATFORM AT FOX CHASE STATION. VANDALS HAD PLACED STONES ON THE TRACK AND WERE OBSERVED THROWING STONES AT THE TRAIN. THE CONDUCTOR WAS LEANING OUT OF THE STAIRWELL OF THE SECOND CAR IN ORDER TO OBSERVE THE VANDALS WHEN HE STRUCK THE HIGH LEVEL PLATFORM. THE PLATFORM WAS PUT THERE FOR BOARDING HANDICAPPED PASSENGERS. THE TRAIN CONSISTED OF 4 SELF-PROPELLED SILVERLINER CARS. ON JUNE 28, 1984, A PASSENGER WAS KILLED AT THE SAME PLATFORM WHILE ATTEMPTING TO BOARD A MOVING TRAIN.

1
4
1

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

- HUMAN FAILURE - CONDUCTOR UNAWARE OF LACK OF PLATFORM CLEARANCE

----- CASUALTIES -----

	FATALITIES	INJURIES
EMPLOYEES ON DUTY	1	0

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

NONE

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

- THROWN FROM TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 8NYC65FR018

85-0090

REPORTED BY:
SE PENNSYLVANIA TRANSPORTATION AUTHORITY

-----LOCATION-----	--TIME--	--DATE--	WEATHER	-----VISIBILITY-----
PHILADELPHIA, PENNSYLVANIA	0823 EDT	06/27/85	CLEAR	DAY/0100 FT

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SE PENNSYLVANIA TRANSPORTATION AUTHORITY	PASSENGER COMMUTER	WEST	EN ROUTE	MAIN 003
2	ANTRAK	PASSENGER	SOUTH	EN ROUTE	MAIN 004

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

SEPTA COMMUTER TRAIN NO. 545 STRUCK THE SIDE OF ANTRAK PASSENGER TRAIN NO. 600 WHILE CROSSING OVER FROM TRACK 3 TO TRACK 4 ON THE SCHUYKILL VIADUCT. THE LEAD CAR OF EACH TRAIN WAS DERAILED. TWELVE PASSENGERS ON NO. 545 WERE TREATED FOR MINOR INJURIES. NO. 545 CONSISTED OF 4 SELF-PROPELLED ELECTRIC SILVERLINER CARS AND NO. 600 CONSISTED OF 6 SELF-PROPELLED ELECTRIC METROLINER CARS. NO. 600 HAD NO PASSENGERS ON BOARD AND HAD DEPARTED SUBURBAN STATION ON TRACK 4 ON ITS WAY TO A COACH YARD. THE TRAIN GOT A "STOP AND PROCEED" SIGNAL AT SIGNAL PW. AS THE ENGINEER PROCEEDED PAST THE SIGNAL, HE SAW THE SWITCH AHEAD OF THE TRAIN WAS REVERSED. HE PLACED THE BRAKES IN EMERGENCY APPLICATION AND CAME TO A STOP FOULING THE SWITCH. MINUTES LATER, NO. 545 CAME AROUND A CURVE ON TRACK 3, NEXT TO NO. 600. THE ENGINEER OF NO. 545 WAS MOVING UNDER A SIGNAL INDICATING "RESTRICTED". HE ANTICIPATED BEING SWITCHED FROM TRACK 3 TO TRACK 4 BUT COULD NOT SEE UNTIL TOO LATE THAT NO. 600 WAS FOULING THE CROSSOVER. HE APPLIED THE BRAKES IN EMERGENCY, BUT THE TRAIN STRUCK THE SIDE OF NO. 545. TESTS REVEALED SIGNAL BW HAD IMPROPER CIRCUIT DESIGN TO CONTROL TRAIN MOVEMENT ON TRACK 4 AND HAD NOT BEEN PROPERLY TESTED.

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

1. INADEQUATE BASIC SYSTEM DESIGN
2. HUMAN FAILURE - IMPROPER SIGNAL CIRCUIT DESIGN WAS NOT TESTED

----- OTHER FACTORS -----

1. SYSTEM CHANGE MADE WITHOUT SYSTEM TEST
2. LACK OF INFORMATION ABOUT THE STATE OF THE SYSTEM
3. FAILURE TO PROVIDE 'FAIL SAFE' MODE IN KNOWN FAILURE MODE

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 39,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 01AX05FR005

85-0013

REPORTED BY:
SOUTHERN PACIFIC TRANSP. CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
ACOLITA, CALIFORNIA		2250 PDT	01/16/85	CLEAR	DARK/0500 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SOUTHERN PACIFIC TRANSP. CO.	FREIGHT		EAST	EM ROUTE	MAIN 001

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

FREIGHT TRAIN 01-LAHT-16, CONSISTING OF 5 LOCOMOTIVE UNITS AND 76 CARS, HAD 13 CARS DERAIL WHILE MOVING ABOUT 55 MPH. THE TRAIN WAS APPROACHING THE YARD AT ACOLITA AND MET ANOTHER FREIGHT TRAIN STANDING ON AN ADJACENT SIDETRACK. THE CREW OF THE STANDING TRAIN SAW SPARKS COMING FROM UNDER THE FIRST TRAIN AND NOTIFIED THE CREW OF THE SPARKS. THE ENGINEER MADE A BRAKE APPLICATION TO STOP THE TRAIN AND THE DERAILMENT OCCURRED IMMEDIATELY. THE FIRST CAR TO DERAIL HAD A BURNED OFF AXLE JOURNAL AND ROLLER BEARING. A LABORATORY EXAMINATION OF THE MATE BEARING REVEALED THE GREASE WAS CONTAMINATED.

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

1. OVER HEATED AXLE JOURNAL
2. FAILURE OF ROLLER BEARING - MATE BEARING HAD CONTAMINATED GREASE

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,229,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0LAX05FR010

85-0049

REPORTED BY:
SOUTHERN PACIFIC TRANSP. CO.

-----LOCATION-----		---TIME---	---DATE---	WEATHER	-----VISIBILITY-----
LOS ANGELES, CALIFORNIA		1945 PST	04/06/85	CLEAR	DARK/0300 FT
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	SOUTHERN PACIFIC TRANSP. CO.	YARD/SWITCHING	EAST	SETOUT/PICKUP NOT IN YARD	MAIN 002

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

YARD TRAIN NO. 751, CONSISTING OF 2 LOCOMOTIVE UNITS AND 54 CARS, HAD 6 CARS DERAIL ON THE MAIN TRACK WHILE MOVING ABOUT 18 MPH. DERAILED CARS STRUCK AND DAMAGED AN ELECTRIC POWER LINE TOWER, A GAS PIPELINE BY THE TRACK, AND DESTROYED A SIGNAL EQUIPMENT BUILDING. THE PIPELINE DAMAGE DID NOT RESULT IN ANY FIRE. INVESTIGATION REVEALED TRACK IRREGULARITIES IN A REVERSE CURVE AND IMPROPERLY MAINTAINED RAIL JOINTS.

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- PROBABLE CAUSES -----
1. FAILURE OF TRACK CROSS ELEVATION DUE TO NORMAL DETERIORATION/WEAR
 2. FAILURE OF BALLAST DUE TO NORMAL DETERIORATION/WEAR
 3. FAILURE OF BALLAST - EXTREME LOW JOINT CAUSED CAR TO ROCK OFF

----- CASUALTIES -----
NONE

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

RAILROAD	NON-RAILROAD
\$ 292,000	\$ 172,000

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 01AX03FR013

85-0068

REPORTED BY:
SOUTHERN PACIFIC TRANSP. CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
EL MONTE, CALIFORNIA		1722 PDT	05/09/85	CLOUDY	DAY/1800 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---	
1	SOUTHERN PACIFIC TRANSP. CO.	LUCAL FREIGHT	EAST	EN ROUTE	MAIN	001

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

LOCAL FREIGHT TRAIN NO. 534 STRUCK A VAN ON A GRADE CROSSING, RESULTING IN FATALITIES OF THE VAN DRIVER AND 2 PASSENGERS AND CRITICAL INJURIES TO 2 OTHER VAN PASSENGERS. THE TRAIN CONSISTED OF ONE LOCOMOTIVE UNIT AND 8 CARS, AND WAS MOVING AT 43 MPH. THE CROSSING LIGHTS AND BELL WERE FUNCTIONING AND THE CROSSING GATES WERE DOWN. VEHICLES WERE AT THE GATES ON EACH SIDE OF THE TRACK WAITING FOR THE TRAIN TO PASS. THE VAN DROVE AROUND THE OTHER VEHICLES, DOWN THE OPPOSITE LANE AND AROUND THE LOWERED GATES, THEN ONTO THE CROSSING IN FRONT OF THE TRAIN WHICH WAS ONLY 10 FEET AWAY. THE VAN DRIVER'S AUTOPSY WAS NEGATIVE FOR ALCOHOL AND DRUGS.

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

1. HUMAN FAILURE - VAN WAS DRIVEN AROUND AUTOS AND THROUGH GATES

----- CASUALTIES -----

PUBLIC OR RR PROPERTY	FATALITIES INJURIES	
	FATALITIES	INJURIES
	3	2

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

RAILROAD	NON-RAILROAD
\$ 1,000	\$ 6,000

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

1. STRUCK BY TRAIN

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 01AX05FR016

85-0075

REPORTED BY:
SOUTHERN PACIFIC TRANSP. CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
COLTON, CALIFORNIA		1225 PDT	06/08/85	CLEAR	DAY/7920 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	SOUTHERN PACIFIC TRANSP. CO.	CUT OF CARS	WEST	MOVEMENT IN YARD		YARD 904

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

A SWITCH CREW WAS MOVING A TRAIN OF 111 CARS FROM A RECEIVING YARD TOWARD THE CLASSIFICATION YARD HUMP WHEN A COUPLER KNUCKLE BROKE, ALLOWING 51 CARS TO ROLL FREE. WHEN THE BREAKAWAY WAS DETECTED, THE ENGINEER STOPPED THE TRAIN AND A SECOND COUPLER BROKE, ALLOWING 29 MORE CARS TO RUNAWAY. THE FIRST RUNAWAY CUT OF CARS ROLLED FOR ABOUT ONE MILE BEFORE COLLIDING WITH A STANDING TRAIN AND DERAILING. THE SECOND RUNAWAY ROLLED INTO THE REAR OF THE FIRST ONE AND A SECOND DERAILMENT OCCURRED. A TANK CAR OF HYDROCHLORIC ACID TIPPED OVER AND BEGAN TO LEAK. IN THE SUBSEQUENT WRECK CLEARING OPERATION, THE TANK CAR WAS DROPPED THREE TIMES AND FINALLY RUPTURED, RESULTING IN A SPILL OF ABOUT 6,000 GALLONS OF ACID. EMPLOYEES IN A NEARBY LOCOMOTIVE SHOP WERE BRIEFLY EVACUATED AFTER THE INITIAL DERAILMENT.

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

1. BROKEN COUPLER KNUCKLE
2. FAILURE OF COUPLER KNUCKLE - LET CUT OF CARS RUN AWAY THROUGH HUMP YARD

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,544,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT #LAX85FR018

85-0083

REPORTED BY:
SOUTHERN PACIFIC TRANSP. CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
MONTELL0, NEVADA		0215 PDT	06/22/85	CLEAR	DARK/4960 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	SOUTHERN PACIFIC TRANSP. CO.	FREIGHT UNIT TRAIN	WEST	EN ROUTE		MAIN 001
2	SOUTHERN PACIFIC TRANSP. CO.	FREIGHT	WEST	EN ROUTE		MAIN 001

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

FREIGHT TRAIN EXTRA 9169 WEST STRUCK THE REAR OF STANDING FREIGHT TRAIN EXTRA 8315 WEST WHILE MOVING 22 MPH. THE CABOOSE AND ONE CAR OF TRAIN 8315 WERE DERAILED. A HELPER LOCOMOTIVE WAS BEHIND THE CABOOSE, AND DURING THE DERAILMENT THE CABOOSE OVERRODE THE HELPER LOCOMOTIVE, FATALLY INJURING THE FIREMAN AND SERIOUSLY INJURING THE ENGINEER OF THE HELPER AND A CONDUCTOR IN THE CABOOSE. TRAIN 8315 WAS STOPPED WHILE A BRAKE PROBLEM WAS BEING INSPECTED. TRAIN 9169 HAD PASSED A SIGNAL INDICATING A RESTRICTED PROCEED ASPECT. THE ENGINEER REALIZED TRAIN 8315 WAS STANDING ON THE SAME TRACK AT A DISTANCE OF ABOUT 600 FEET AND HE PLACED THE TRAIN BRAKES IN EMERGENCY APPLICATION.

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

1. HUMAN FAILURE - TRAIN OPERATED IN EXCESS OF RESTRICTED SPEED
2. INATTENTIVENESS TO DUTIES
3. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE #34

----- CASUALTIES -----

EMPLOYEES ON DUTY	FATALITIES INJURIES	
	1	2
	1	2

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

PROPERTY LOSSES	
RAILROAD	NON-RAILROAD
\$ 412,000	\$ 0

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

1. THROWN FROM SEAT/POSITION IN COLLISION/DERAILMENT
2. COLLAPSE OF STRUCTURE (TRAIN)

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

85-0463

BRIEF OF RAILROAD ACCIDENT 01485FR013

REPORTED BY:
ST. LOUIS SOUTHWESTERN RY CO.

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
BURMAN, KANSAS		0025 CST	04/27/85	RAIN	DARK/0400 FT	

TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	ST. LOUIS SOUTHWESTERN RY CO.	FREIGHT	EAST	EN ROUTE	MAIN 001

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

FREIGHT TRAIN 01-NCST-23, CONSISTING OF 3 LOCOMOTIVE UNITS AND 69 CARS, HAD THE 3 UNITS AND 41 CARS DERAIL WHILE MOVING AT 53 MPH. THUNDERSTORMS AND HEAVY RAINFALL WERE OCCURRING AT THE TIME, LIMITING VISIBILITY. THE ENGINEER SAW DEBRIS ON THE TRACK AHEAD AND STARTED TO SLOW THE TRAIN, BUT ALMOST INSTANTLY THE TRAIN DERAILED ON TRACK DISTURBED BY HIGH WATER. A NEARBY RANCHER HEARD THE WRECK AND CAME TO HELP. HE HAD TO WADE THROUGH WAIST-DEEP WATER TO GET TO THE OVERTURNED LOCOMOTIVE. THE ENGINEER AND HEAD BRAKEMAN RECEIVED MINOR INJURIES. THE SURROUNDING AREA HAD MEASURED 2 TO 3 INCHES OF RAIN IN THE PRECEDING 24 HOURS, AND THE IMMEDIATE AREA OF THE ACCIDENT HAD RECORDED 7 INCHES OF RAIN IN A 2-HOUR PERIOD. THE SAFETY BOARD INVESTIGATOR SUGGESTED TO THE RAILROAD THAT A LARGER DIAMETER PIPE UNDER THE TRACK AT THIS LOCATION WOULD PREVENT WATER FROM GOING OVER THE TRACK. LATER, THE RAILROAD INSTALLED A 60 INCH DIAMETER CULVERT PIPE TO REPLACE A 36 INCH PIPE.

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

1. DAMAGE TO BALLAST FROM NATURAL FORCES
2. ROADBED WASHOUT
3. DAMAGE BY NATURAL FORCES - SEVEN INCHES OF RAIN FELL IN TWO HOURS

----- CASUALTIES -----	----- PROPERTY LOSSES -----			
	FATALITIES	INJURIES	RAILROAD	NON-RAILROAD
EMPLOYEES ON DUTY	0	2	\$ 3,245,000	\$ 5,000

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

1. THROWN FROM SEAT/POSITION IN COLLISION/DERAILMENT

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 02EN05FR011

85-0003

REPORTED BY:
UNION PACIFIC RR

-----LOCATION-----		---TIME--	---DATE--	WEATHER	-----VISIBILITY-----	
BERING, NEBRASKA		0325 MST	01/02/85	CLOUDY	DARK/4200 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----		---TRACK/NO---
1	UNION PACIFIC RR	FREIGHT UNIT TRAIN	EAST	EN ROUTE		YARD 004

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

UNIT COAL TRAIN EXTRA 2456 EAST, CONSISTING OF 3 LOCOMOTIVE UNITS AND 111 CARS, RAN THROUGH AN IMPROPERLY ALIGNED SWITCH INTO A SIDING AND STRUCK 2 STANDING UNOCCUPIED LOCOMOTIVE UNITS. TWO LOCOMOTIVE UNITS AND ONE CAR OF THE TRAIN DERAILED, AS WELL AS ONE OF THE STANDING LOCOMOTIVE UNITS. THE ENGINEER PUT THE TRAIN IN EMERGENCY BRAKING WHEN HE SAW THE OPEN SWITCH AHEAD. THE TRAIN SPEED WAS 20 MPH. VISIBILITY OF THE SWITCH WAS AFFECTED BY DARKNESS. PRIOR TO THE ACCIDENT, 2 BRAKEMEN ON THE STANDING LOCOMOTIVE HAD FAILED TO REALIGN THE SWITCH FOR THE MAIN TRACK AFTER SWITCHING THE LOCOMOTIVE INTO THE SIDE TRACK.

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

1. FAILURE OF PERSONNEL TO RECOGNIZE IMPROPER OPERATING PROCEDURE AS HAZARDOUS
2. HUMAN FAILURE - BRAKEMEN LEFT MAIN TRACK SWITCH INTO YARD OPEN
3. FAILURE TO PROPERLY PERFORM PROCEDURE PRESCRIBED BY RR OPERATING RULE 093

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 221,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0LXBSFR004

85-0033

REPORTED BY:
UNION PACIFIC RR

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
DELTA, UTAH		0835 MST	02/22/85	CLEAR	DAY/7000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---	
1	UNION PACIFIC RR	FREIGHT UNIT TRAIN	WEST	EN ROUTE	MAIN	001

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

FREIGHT GRAIN TRAIN EXTRA UP 2412 WEST, CONSISTING OF 4 LOCOMOTIVE UNITS AND 52 CARS, HAD THE 4 UNITS AND 26 COVERED HOPPER FREIGHT CARS DERAIL WHILE TRAVELING 49 MPH. THREE BUILDINGS AND 25 OF THE CARS WERE DESTROYED. BEFORE THE TRAIN DEPARTED SALT LAKE CITY, ELECTRICAL PROBLEMS DEVELOPED IN THE LEAD LOCOMOTIVE UNIT. THE UNIT WAS ELECTRICALLY ISOLATED FROM THE TRAIN, BUT WAS LEFT ON THE HEAD END AND DISPATCHED OUT OF THE TERMINAL. AT DELTA, THE NO. 2 TRACTION MOTOR SEIZED ON THE LEAD UNIT. THE WHEELS SLID IN A LOCKED POSITION FOR ABOUT 3/4 OF A MILE, THEN THE DERAILMENT OCCURRED. THE UNION PACIFIC MADE A VIDEO TAPE OF THE ACCIDENT SITE, INCLUDING THE DAMAGE, CLEARING OPERATION, AND FAILED COMMUTATOR BEARING OF THE TRACTION MOTOR. THE TAPE WILL BE USED IN A RAILROAD OPERATIONS TRAINING COURSE.

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

1. FAILURE OF PERSONNEL TO RECOGNIZE COMPONENT MALFUNCTION AS HAZARDOUS
2. HUMAN FAILURE - LOCO SENT OUT WITH FAULTY TRACTION MOTOR
3. FAILURE OF TRACTION MOTOR COMMUTATOR END BEARING DUE TO UNUSUAL DETERIORATION/WEAR

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,138,000	0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 08EN85FR019

85-0071

REPORTED BY:
UNION PACIFIC RR

-----LOCATION-----		---TIME---	---DATE---	WEATHER	-----VISIBILITY-----
ROSCOE, NEBRASKA		1715 NBT	05/19/85	CLEAR	DAY/9000 FT
TRAIN	-----RAILROAD-----	-----CLASS-----	DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	UNION PACIFIC RR	FREIGHT	EAST	EN ROUTE	MAIN 001

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

FREIGHT TRAIN EXTRA 3707 EAST, CONSISTING OF 4 LOCOMOTIVE UNITS AND 138 CARS, HAD 40 CARS DERAIL WHILE TRAVELING AT 55 MPH. SEVERAL STEEL DRUMS OF BERYLLIUM COMPOUND WERE EJECTED OUT OF A BOXCAR, BROKE OPEN AND SPILLED. JUST BEFORE THE DERAILMENT, THE ENGINEER HAD MADE A THROTTLE REDUCTION FROM POSITION NO. 6 TO NO. 4. THE FIRST CAR TO DERAIL WAS AN EMPTY TANK CAR, AND THE TRACK WAS TANGENT.

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

1. SYSTEM DESIGN INADEQUACY - SLACK RUN-IN LIFTED WHEEL OF HUNTING TRUCK

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 773,000	\$ 0

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT @DEN85FR020

85-0079

REPORTED BY:
UNION PACIFIC RR

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
KERSEY, COLORADO		1640 HBT	06/14/85	CLEAR	DAY/5000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	UNION PACIFIC RR	FREIGHT UNIT TRAIN		EAST	EN ROUTE	MAIN 001

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

A FLATBED TRUCK CARRYING AN EMPTY 400 GALLON PORTABLE OIL TANK DROVE UNDER THE RAILROAD OVERPASS ON U.S. HIGHWAY NO. 34. THE TOP OF THE TANK WAS ONE FOOT HIGHER THAN THE CLEARANCE UNDER THE BRIDGE AND THE TANK STRUCK THE BRIDGE, DISLOGGING IT AND THE TRACK ON THE BRIDGE. A FEW MINUTES LATER, FREIGHT TRAIN EXTRA 3702 EAST, CONSISTING OF 3 LOCOMOTIVE UNITS AND 39 LOADED COAL CARS, RAN OVER THE MISALIGNED BRIDGE AND DERAILED. DERAILED CARS AND COAL PILED UP ON THE HIGHWAY BELOW. THE LOCOMOTIVE TURNED OVER ON THE SIDE OF A FILL NEXT TO THE HIGHWAY. A PASSING AUTOMOBILE WAS PARTLY BURIED UNDER THE COAL, AND THE HIGHWAY AND RAILROAD WERE CLOSED FOR 7 DAYS AFTER THE ACCIDENT. THE DRIVER OF THE TRUCK HAD 3 PREVIOUS CITATIONS FOR VARIOUS TRUCK LAW VIOLATIONS.

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----- PROBABLE CAUSES -----	----- OTHER FACTORS -----
1. HUMAN FAILURE - DRIVER IGNORED OVERSIZED LOAD AT OVERHEAD BRIDGE	1. VEHICLE OPERATOR'S ERROR IN JUDGEMENT DUE TO INATTENTIVENESS TO DUTIES 2. ACCIDENTAL DAMAGE OF FACILITY BY VEHICLE

----- CASUALTIES -----	----- PROPERTY LOSSES -----	
NONE	RAILROAD	NON-RAILROAD
	\$ 1,758,000	\$ 6,000

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

BRIEF OF RAILROAD ACCIDENT 0DEN03FR021

85-0084

REPORTED BY:
UNION PACIFIC RR

-----LOCATION-----		--TIME--	--DATE--	WEATHER	-----VISIBILITY-----	
COKEVILLE, WYOMING		0300 MDT	06/25/85	CLEAR	DARK/6000 FT	
TRAIN	-----RAILROAD-----	-----CLASS-----		DIRECTION	-----OPERATING PHASE-----	---TRACK/NO---
1	UNION PACIFIC RR	FREIGHT		EAST	EN ROUTE	MAIN 001

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

FREIGHT TRAIN EXTRA 3532 EAST, CONSISTING OF 3 LOCOMOTIVE UNITS AND 46 CARS, HAD 14 CARS DERAIL AND DESTROYED WHILE MOVING 60 MPH. THE TRAIN HAD PASSED A HOT BOX DETECTOR 20 MILES BEFORE THE ACCIDENT SITE WITH NO INDICATIONS OF A HOT BOX. AN AXLE BEARING HAD OVERHEATED ON THE 10TH CAR, RESULTING IN THE AXLE BREAKING. THE BEARING, JOURNAL, AND AXLE HUB HAD BURNED OFF, FELL INTO A LAKE BESIDE THE TRACK, AND WAS NOT FOUND. A UNION PACIFIC LABORATORY REPORT OF THE MATE BEARING REVEALED ONLY HALF THE REQUIRED AMOUNT OF GREASE WAS PRESENT, BUT ALSO STATES FAILURE WAS UNUSUAL COMPARED TO TYPICAL INADEQUATE LUBRICATION FAILURE.

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

1. OVER HEATED AXLE JOURNAL
2. FAILURE OF ROLLER BEARING - DUE TO IMPROPER LUBRICATION

----- CASUALTIES -----

NONE

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

RAILROAD	NON-RAILROAD
\$ 1,040,000	\$ 0