

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: August 1, 1980

Forwarded to:

Mr. R. G. Flannery
President and Chief Executive Officer
Western Pacific Railroad Co.
526 Mission Street
San Francisco, California 94105

SAFETY RECOMMENDATION(S)
R-80-27 through 29

The Western Pacific Railroad has reported to the Federal Railroad Administration 29 accidents which occurred in the Sacramento area from November 1, 1978, to November 1, 1979. Although none of these accidents met the established criteria for investigation by the National Transportation Safety Board, the Safety Board undertook a review of the accident reports and an on-site inspection to determine whether these accidents collectively indicate a situation posing a potential threat to public safety.

The Safety Board's investigation revealed that 22 of the 29 accidents were not directly relevant to operations in the South Sacramento Yard: 5 were rail/highway grade crossing accidents, 5 were side collisions, 6 were car derailments, 5 involved engines with cars which were pushed or pulled through improperly aligned switches, and 1 involved a car which rolled into and damaged a railroad shop door. (See Attachment I.)

The remaining seven accidents and a subsequent one on June 7, 1980, however, occurred in the vicinity of 21st Street yard area and, with one exception, involved cars and/or locomotives which rolled uncontrolled to a collision or derailment. General descriptions of these accidents may be found in the attachment.

South Sacramento Yard is managed by a Terminal Superintendent and a Trainmaster who also are responsible for 120 miles of main track and branch lines including three other terminals. Yardmasters are responsible for around-the-clock supervision of South Sacramento Yard.

The yard is surrounded by residential and commercial buildings. The residential area east of the yard is exposed to the greater risk of harm from railroad operations. There are public streets on both sides of the yard and a main street which crosses the main tracks at grade at the east end of the yard. Pedestrian and vehicular traffic is relatively heavy since Sacramento City College and C. K. McClatchy High School are located nearby on Freeport Boulevard. Many of the students walk across the railroad property going to and from the schools.

The track grade in the yard descends from the west end to east end at an average rate of about 0.25 percent and from the approximate midpoint to the east end at about 0.3 percent. Just short of the main track at the east end of the yard, a "run-out" track diverges to the right and comes to an end in a barrier. The "run-out" track was built in 1972 to prevent uncontrolled cars and locomotives from running into the main track.

After the fourth of six similar accidents which occurred between March 31 and September 21, 1979, the Terminal Superintendent issued a "notice" on July 24, 1979, to train and engine employees, yardmasters, and all concerned advising them of the need to understand and adhere strictly to Western Pacific rules which require proper securement of rolling stock left on yard tracks and warning that future violations might be disciplined severely. Following the sixth accident, the Terminal Superintendent issued another "notice" on September 5, 1979, regarding the "critical problem in this yard relating to the failure of personnel to carry out instructions." Third and fourth notices were issued on September 15 and 19, respectively, regarding the securement of standing cars.

On June 7, 1980, improperly secured cars rolled out of the east end of track 1 into the "run-out" track and derailed the east car. Understandably, the neighboring residents have voiced their concern regarding a perceived threat to public safety.

Despite the fact that none of the aforementioned eight accidents resulted in harm to the public, the Safety Board's experience in investigating similar accidents indicates that such accidents represent a threat to residents of the surrounding area, especially if hazardous materials are involved. In addition, each accident posed a threat to the safety of the yard employees.

(3)

We conclude that the Western Pacific's operations at South Sacramento Yard are not managed and supervised adequately to provide a satisfactory level of safety to the public. Management has not achieved a balance between the required level of safety and the level of training and motivation exhibited by the employees. The existing physical redundancies such as the "run-out" track are not adequate to assure the required level of safety. Yard tracks with a descending grade of 0.3 percent should have some means of preventing cuts of cars from rolling out at the lower ends of each track. The history and circumstances of the accidents at the South Sacramento Yard since November 1, 1978, and the potential for similar future accidents producing harm to the public and employees, especially if hazardous materials were to be involved, present what we believe to be an unacceptable safety risk.

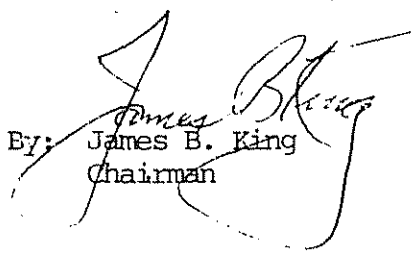
Therefore, the National Transportation Safety Board recommends that the Western Pacific:

Install physical appliances, such as car retarders, track skates, or derails, to prevent cars from rolling out of the lower ends of the tracks at South Sacramento Yard. (Class II - Priority Action) (R-80-27)

Improve the quality of supervision and the training of yard employees in respect to the safe operation of South Sacramento Yard. (Class II - Priority Action) (R-80-28)

Periodically examine employees on those rules which govern their performance. The examination should ensure that employees exhibit knowledge and understanding of the pertinent rules and proficiency in their application. (Class II - Priority Action) (R-80-29)

KING, Chairman, DRIVER, Vice Chairman, GOLDMAN and BUFSLEY Members, concurred in these recommendations. McADAMS, Member, did not participate.


By: James B. King
Chairman

ATTACHMENT I

Accident/incident records:

The reportable and nonreportable accident/incident records required by 49 CFR 225 for the period November 1, 1978, through October 31, 1979, reveal:

In the Sacramento area during the 1-year period, 29 accidents were recorded. Twenty-two accidents occurred at locations away from 21st Street. These 22 accidents can be generally grouped as follows:

- A. Five were rail/highway grade crossing accidents
- B. Five were side collisions
- C. Six were derailed cars
- D. Five were engines with cars either pulling or pushing through improperly-lined switches
- E. One involved a car which rolled into a shop door when a coupling failed to make

The remaining seven accidents occurred in the vicinity of 21st Street and six of these were subject of complaint by the principal parties. The seventh accident was not made public. The seventh must be considered since the nature and probable cause are similar to the other six accidents.

June 2, 1977

Western Pacific diesel engine 713, moving under its own power with no operator at the controls, crashed through a wall resulting in destruction of shop offices and damage to the locomotive and other property and equipment.

Determination: Improper securement by an employee.

November 22, 1978

A Western Pacific switch crew left diesel engine 706 unattended during duty hours. A trespasser operated the diesel engine from the west end to east end of South Sacramento Yard. The locomotive derailed in the vicinity of 21st Street on Western Pacific property.

Determination: Improper securement by employees.

March 31, 1979

A Western Pacific switch crew placed 47 cars on track 3. No hand brakes were set. The cars rolled east and collided with cars being switched at the east end of track 4.

Determination: Improper securement of freight cars.

June 5, 1979

A switch crew made up a 44-car train on track 1. Another switch crew, on a later tour of duty, found two cars had rolled out of track 1, derailling on the runout track.

Determination: Switch crew shoved track without knowing whether all cars were coupled.

June 17, 1979

A 72-car freight train was placed on track 4 without hand brakes applied. A switch crew removed 38 cars from the west end of this train, leaving 34 unsecured cars on the east end of the track. The 34 cars moved east, derailling a caboose and two other cars at the east end of the runout track.

Determination: Improper securement of cars.

July 13, 1979

As yard locomotive was moving cars out of the lead track, cars were shoved out of No. 5 track and sideswiped the cars on the lead track.

Determination: Cars shoved out the east end of track 5 without proper protection.

August 17, 1979

Two tank cars loaded with syrup rolled out the east end of the yard and out onto the runout track derailling both cars.

The two cars had been switched into track 2 from the west end. Other cars switched into the track did not couple to these cars. The track was later shoved from the west end. When the movement stopped, these two cars kept moving, running out the east end, down onto the runout track, and derailled.

Determination: Switch crew shoved track without knowing whether all cars were coupled.

September 2, 1979

A westbound freight train consisting of 82 cars arrived at South Sacramento Yard on track 4. The diesel engines and a few head cars were doubled to another track. Approximately 3 hours later, the caboose and 38 rear cars rolled east on track 4, down the lead, and onto the runout track derailing the caboose and 1 car. The caboose ended up in 21st Street.

Determination: A conflict of testimony exists on this occurrence and no resolution has yet been made.