

RAILROAD ACCIDENT INVESTIGATION

REPORT NO. 4136

FILED  
OCT 30 1967

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MISSOURI PACIFIC RAILROAD COMPANY

NORFOLK, ARK.

OCTOBER 29, 1967

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DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION

Washington

Summary

DATE:	October 29, 1967	
RAILROAD:	Missouri Pacific	
LOCATION:	Norfolk, Ark.	
KIND OF ACCIDENT:	Collision	
EQUIPMENT INVOLVED:	Freight train	Cut of car
TRAIN NUMBER:	Extra 572 South	
LOCOMOTIVE NUMBERS:	Diesel-electric units 572, 418, 461, 528	
CONSISTS:	58 cars, cabooses	6 cars
SPEEDS:	28 m.p.h.	Standing
OPERATION:	Timetable, train orders	
TRACK:	Single; tangent; level	
WEATHER:	Cloudy	
TIME:	5:15 p.m.	
CASUALTIES:	1 killed; 1 injured	
CAUSE:	Malicious tampering with a switch	

### Location and Method of Operation

The accident occurred on that part of the Arkansas Division extending between Cotter and Diaz, Ark., a distance of 122.8 miles. In the accident area this is a single-track line over which trains operate by timetable and train orders. There is no block-signal system in use. At Norfolk, 24.2 miles south of Cotter, an auxiliary track designated as the house track, 1,199 feet in length, parallels the main track on the east. The north switch of the house track is 495 feet north of the station.

The collision occurred on the Norfolk house track 628 feet south of its north switch and 133 feet south of the station.

Details concerning the tracks, train involved, damages, and other factors are set forth in the appendix.

### Description and Discussion

Extra 572 South, a southbound freight train consisting of 4 diesel-electric units, 58 cars and a caboose, left Cotter at 4:40 p. m. the day of the accident. About 35 minutes later, it entered a 2°00' curve to the left and approached the north switch of the Norfolk house track at 42 miles per hour, as indicated by the speed-recording device. When the train was about 600 feet north of this switch, the engineer saw that the red vane of the switch-stand target was displayed and this indicated to him that the switch was in reverse position, lined for movement from the main track to the house track. He immediately applied the train brakes in emergency and called a warning to the fireman. A few moments later, the train entered the house track at the north switch at a speed of about 35 miles per hour. The engineer said that after the train entered the house track he realized that it was not going to stop short of a cut of cars standing on the house track. He and the fireman then alighted from the locomotive. Moments later, at 5:15 p. m., when its speed had been reduced to about 28 miles per hour, as estimated by the crew members, the train collided with the north end of a cut of six cars standing on the house track, 628 feet south of the north switch.

The fireman was killed and the engineer was injured.

Examination of the north switch of the house track after the accident disclosed that it was in reverse position, lined for entry to the house track. The red-vane target of the switch stand was displayed as viewed from approaching trains. The operating lever of the switch stand was in reverse position and in its keeper. The switch padlock was open and out of the hasp. It was battered and broken. A large rock was found nearby.

A seven-year old boy was questioned by local police authorities after the accident. He confessed that he had

used a rock to open the switch padlock on the morning of the accident. He stated that he then moved the switch to reverse position and left it in that position.

The last train to use the main track in the vicinity of Norfolk prior to the accident passed the north switch of the house track about 1:55 a.m. the day of the accident. The crew members of that train did not notice any unusual condition of the switch.

#### Findings

It is evident that the seven-year old boy broke open the switch padlock of the north switch of the house track and moved the switch to reverse position, lined for movement from the main track to the house track, causing Extra 572 South to be diverted onto the house track and to collide with the cut of six cars.

#### Cause

This accident was caused by malicious tampering with a switch.

Dated at Washington, D. C., this 7th  
day of July 1968  
By the Federal Railroad Administration,  
Railroad Safety Board

Bette E. Holt  
Acting Executive Secretary

(SEAL)

## Appendix

### Tracks

From the north on the main track there are, in succession, a tangent 665 feet in length, a 3<sup>00</sup>4' curve to the right 2,487 feet, a tangent 575 feet, and a 2<sup>00</sup>0' curve to the left 1,008 feet to the north switch of the house track and 591 feet beyond. Southward on the house track from the north switch, there are, in succession, a No 10, left hand turnout, 75 feet in length, a tangent 12 feet, an 8<sup>00</sup>0' curve to the left 91 feet, a tangent 217 feet, a 6<sup>00</sup>0' curve to the right 100 feet, and a tangent 133 feet to the collision point and 38 feet beyond. The grade in the accident area is practically level.

The north switch of the house track is part of a No 10 left hand turnout and is manually operated from a ground throw, low, switch stand located 10 feet east of the centerline of the main track. A single reflectorized red vane, 15½ inches high and 35½ inches long, is mounted on the switch-stand spindle. The center of the vane is 76 inches above the top of the switch ties. When the switch is lined for movements from the main track to the house track the red vane is displayed.

### Train Involved

Extra 572 South consisted of road-switcher type diesel-electric units 572, 418, 461 and 528, coupled in multiple-unit control, 58 cars and a caboose. As the train approached the derailment point, the engineer and fireman were in the control compartment near the front of the first unit. The front brakeman and swing brakeman were in the control compartment of the second unit, and an off-duty engine-service employee was in the control compartment of the third unit. The conductor and flagman were in the caboose. The train brakes had been tested and had functioned properly when used en route.

### Damages

Extra 572 South stopped with the front end 596 feet South of the collision point.

The four diesel-electric units and first 13 cars were derailed. They stopped in various positions on or near the structure of the house track. All the cars in the cut of 6 cars were also derailed. The 4 diesel-electric units were heavily damaged. Of the 19 derailed cars, 15 were heavily damaged and 4 were somewhat damaged.

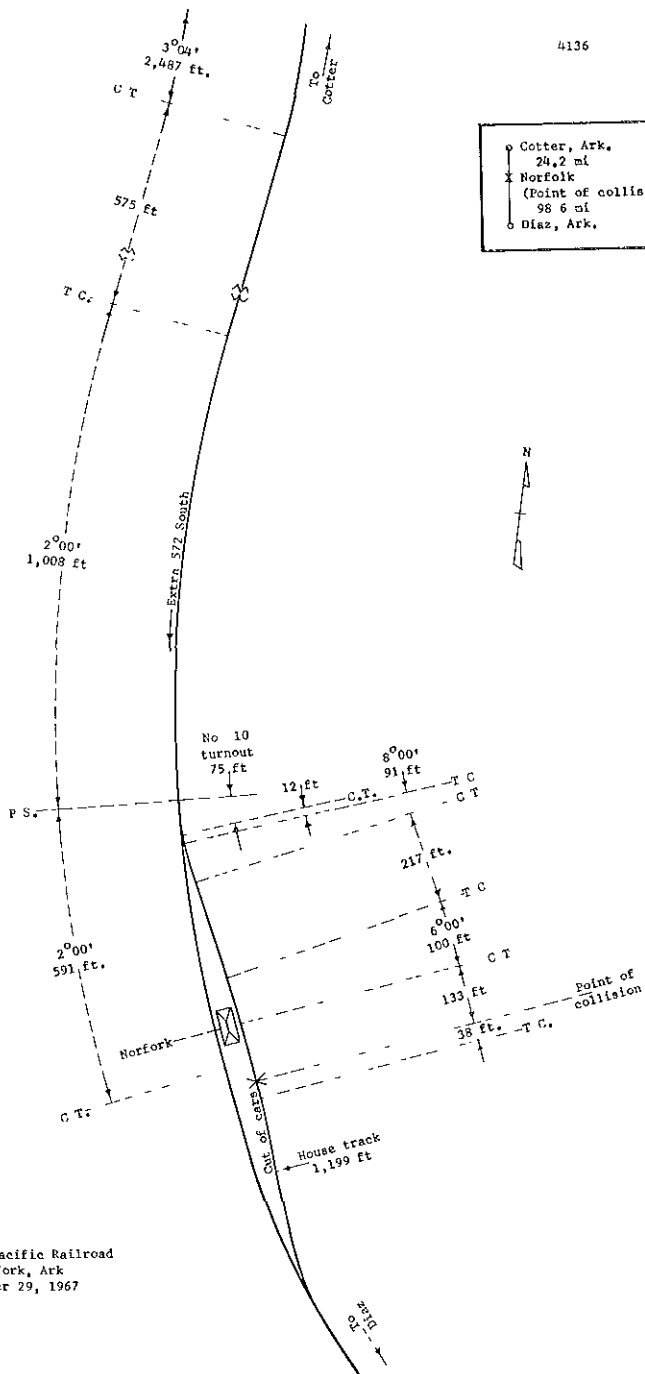
### Other Factors

The accident occurred at 5:15 p.m., in clear weather.

The maximum authorized speed for freight trains in the territory involved is 49 miles per hour.

According to their daily time returns, crew members of Extra 572 South had been on duty 40 minutes at the time of the accident, after having been off-duty in excess of 14 hours

o Cotter, Ark.  
 24.2 mi  
 x Norfolk  
 (Point of collision)  
 98.6 mi  
 o Diaz, Ark.



Missouri Pacific Railroad  
 Norfolk, Ark  
 October 29, 1967