

RAILROAD ACCIDENT INVESTIGATION

Report No 3819

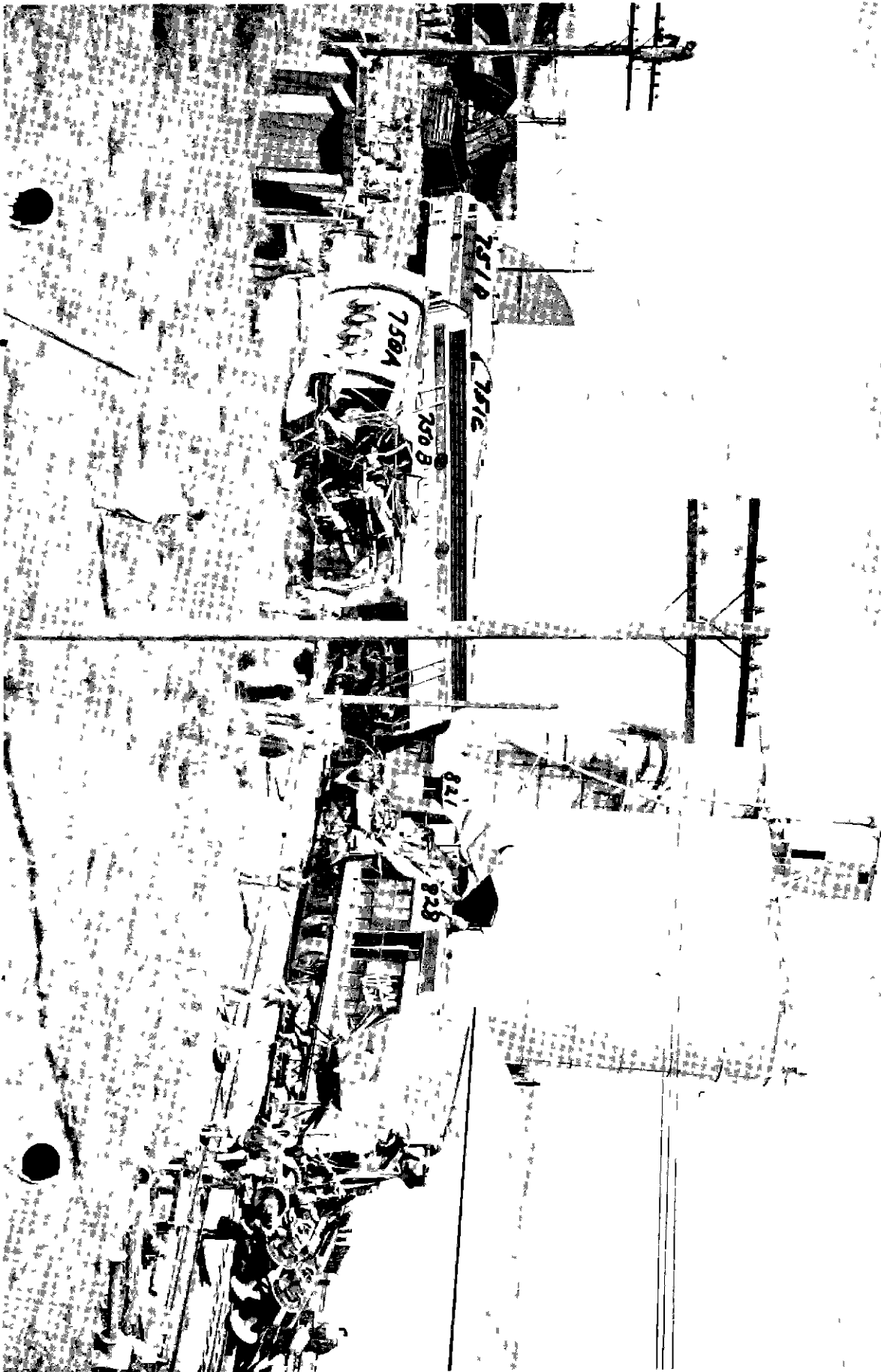
THE COLORADO AND SOUTHERN RAILWAY COMPANY

CHUGWATER, WYO

SEPTEMBER 16, 1958

INTERSTATE COMMERCE COMMISSION

Washington



SUMMARY

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DATE	September 16, 1958	
RAILROAD	Colorado and Southern	
LOCATION	Chugwater, Wyo	
KIND OF ACCIDENT	Head-end collision	
TRAINS INVOLVED	Freight	Freight
TRAIN NUMBERS	Extra 828 South	Extra 750A North
LOCOMOTIVE NUMBERS	Diesel-electric unit 828	Diesel-electric units 750A, 750B, 821, 751C, and 751D
CONSISTS	18 cars, caboose	104 cars, caboose
SPEEDS	Standing	32 m p h
OPERATION	Timetable and train orders	
TRACK	Single, tangent; 0 15 percent descending grade northward	
WEATHER	Clear	
TIME	7 55 p m	
CASUALTIES	5 injured	
CAUSE	Failure to obey right-of-track order	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3819

**IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER
THE ACCIDENT REPORTS ACT OF MAY 6, 1910**

THE COLORADO AND SOUTHERN RAILWAY COMPANY

January 15, 1959

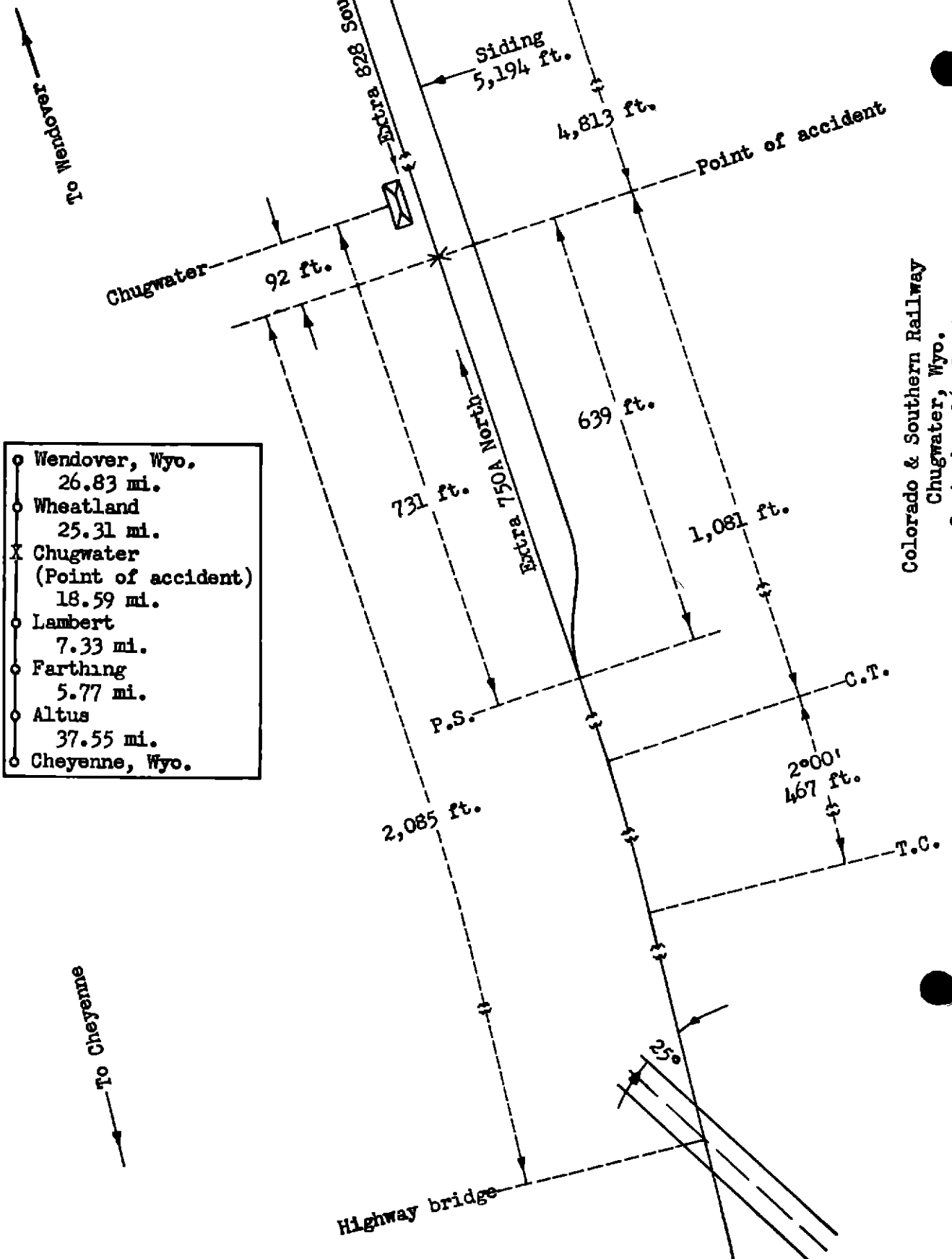
Accident at Chugwater, Wyo , on September 16, 1958, caused by failure to obey right-of-track order

REPORT OF THE COMMISSION¹

FREAS, Commissioner

On September 16, 1958, there was a head-end collision between 2 freight trains on the Colorado and Southern Railway at Chugwater, Wyo , which resulted in the injury of 5 train-service employees

¹Under authority of section 17 (2) of the *Interstate Commerce Act* the above-entitled proceeding was referred by the Commission to Commissioner Freas for consideration and disposition



○	Wendover, Wyo.	26.83 mi.
○	Wheatland	25.31 mi.
X	Chugwater (Point of accident)	18.59 mi.
○	Lambert	7.33 mi.
○	Farthing	5.77 mi.
○	Altus	37.55 mi.
○	Cheyenne, Wyo.	

Colorado & Southern Railway
 Chugwater, Wyo.
 September 16, 1958

Location of Accident and Method of Operation

This accident occurred on that part of the Northern Division extending between Cheyenne and Wendover, Wyo., 121.4 miles, a single-track line over which trains are operated by timetable and train orders. There is no block system in use. At Chugwater, 69.3 miles north of Cheyenne, a siding 5,194 feet in length parallels the main track on the east. The south switch of this siding is 731 feet south of the station at Chugwater. The accident occurred on the main track at a point 639 feet north of the south switch of the siding and 92 feet south of the station. From the south there are, in succession, a 2° curve to the left 457 feet in length, a tangent 1,081 feet to the point of accident and 4,813 feet northward. The grade in the vicinity of the point of accident is 0.15 percent descending northward.

A highway bridge spans the main track at an angle of about 25 degrees. The centerline of the bridge is located 2,085 feet south of the point of accident. The view from a northbound locomotive is considerably restricted in the vicinity of the point of accident by the curvature of the track and the highway bridge.

The station at Chugwater consisted of a frame building about 23 feet in width and 67 feet in length. It was located approximately 20 feet west of the main track.

A train-order signal of the two-position, lower-quadrant, semaphore type is located near the station.

This carrier's operating rules read in part as follows:

DEFINITIONS

Reduced Speed — Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

OPERATING RULES

S-71 A train is superior to another train by right, class or direction.

Right is conferred by train order, Class and direction by timetable.

Right is superior to class or direction.

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A train order restricting the movement of a train must not be issued for it at the point where such movement is restricted if it can be avoided. When so sent, the fact must be stated in the order and the train will be brought to a stop before delivery is made. Operator must use stop signals, in addition to train order signal.

A train that is advanced to a station where the opposing train gets the order at the meeting or waiting point must approach the station expecting to find the opposing train receiving the order on the main track.

FORMS OF TRAIN ORDERS

S-C

Giving Right Over An Opposing Train

- (4) Extra 72 south has right over Extra 91 north A to R and wait at
 N until 2 10 p m
 P until 3 25 p m
 for Extra 91 north

The first-named extra train must not pass the designated waiting points before the time given, unless the second-named extra train has arrived

* * *

The right conferred must extend to the end of the run of the first-named extra train, or to the end of single track, when practicable. When the right extends only to an intermediate station, the first-named extra train, unless the second-named extra train has been met, must approach the intermediate point to which right has been given, at Reduced Speed, take siding, and must not leave until the second-named extra train has arrived, unless authorized by train order to do so

* * *

The maximum authorized speed for freight trains in the vicinity of the point of accident is 45 miles per hour

The locomotive and the caboose of Extra 750A North were provided with two-way radio equipment

Description of Accident

Extra 828 South, a southbound freight train, departed from Guernsey, 8.4 miles north of Wendover, at 3 00 p m and passed Wendover at 4 25 p m. This train, consisting of road-switcher type diesel-electric unit 828, 18 cars, and a caboose, departed from Wheatland, 25.3 miles north of Chugwater, at 5 37 p m, and stopped on the main track at Chugwater at 7 45 p m, with the front end of the locomotive 92 feet south of the station. Ten minutes later it was struck by Extra 750A North.

At Cheyenne the crew of Extra 750A North received copies of train order No. 59, which read as follows:

Extra 750A North has right over Extra 828 South

Cheyenne to Chugwater and wait at

Altus until 7 10 pm

Fathing until 7 20 pm

Lumbert until 7 30 pm

for Extra 828 South

Extra 828 South gets this order at Chugwater

Altus, Farthing, and Lambert are located, respectively, 37.5 miles, 43.3 miles, and 50.6 miles north of Cheyenne. Extra 750A North, a northbound freight train, consisted of diesel-electric units 750A, 750B, 821, 751C, and 751D, coupled in multiple-unit control, 104 cars, and a caboose. This train departed from Cheyenne at 5:35 p. m., passed Altus about 7:14 p. m., passed Farthing about 7:22 p. m., passed Lambert about 7:33 p. m., passed the south switch of the siding at Chugwater, and while moving at a speed of 32 miles per hour, as indicated by the tape of the speed-recording device, it collided with Extra 828 South.

The locomotive and the 1st to the 7th cars, inclusive, of Extra 750A North were derailed. Separations occurred at both ends of the 2nd and 3rd diesel-electric units and at both ends of the 1st to the 5th cars, inclusive. The 1st diesel-electric unit stopped on its right side 47 feet east of the main track and about 120 feet north of the point of collision. The forward portion of the superstructure, which included the control compartment, was torn from the unit. The 2nd diesel-electric unit stopped with the front end on the main track and the rear end about 40 feet east of the main track. This unit leaned to the west at an angle of 45 degrees. The 3rd diesel-electric unit, which was of the road-switcher type, stopped upright with the front end in the station building and the rear end on the main track. The 4th unit stopped upright to the rear of the 3rd unit and 6 feet west of the main track. The 5th unit stopped upright on the track structure to the rear of the 4th unit. The derailed cars stopped in various positions on or near the track structure. The 1st diesel-electric unit was destroyed, the 2nd unit was heavily damaged, and the other units were slightly damaged. One of the derailed cars was heavily damaged and the other 4 derailed cars were somewhat damaged. The locomotive, and the 1st and 2nd cars of Extra 828 South were derailed. The locomotive was moved northward by the force of the impact, and it stopped on the main track structure with the front end about 100 feet north of the point of collision. The 1st and the 2nd cars were destroyed. The 2nd car, and a portion of the 1st car, stopped in the station building. The locomotive was heavily damaged. The station building was demolished.

The engineer, the fireman, a student fireman, the front brakeman, and the flagman of Extra 750A North were injured.

The weather was clear at the time of the accident, which occurred at 7:55 p. m.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 5.3 trains.

Discussion

The train dispatcher transmitted train order No. 59 to the operators at Cheyenne and Chugwater for delivery to the members of the crews of Extra 750A North and Extra 828 South, respectively. This order gave Extra 750A North right over Extra 828 South between Cheyenne and Chugwater, and required it to wait at Altus, Farthing, and Lambert, in accordance with the times specified in the order. The order also indicated that Extra 828 South would receive train order No. 59 at Chugwater. Under the rules of the carrier, in the event Extra 750A North did not meet Extra 828 South at Altus, Farthing, or Lambert, it was required to approach Chugwater at Reduced Speed, enter the Chugwater siding at the south switch, and remain in the siding until Extra 828 South arrived, unless authorized to leave by train order.

As Extra 828 South was approaching the point where the accident occurred the members of the crew on the locomotive observed that the train-order signal at Chugwater was in Stop position,

and that the operator was giving stop signals indicating he held a train order restricting the movement of the train. When the train stopped, the headlight was lighted brightly. The engineer said that he made a heavy brake-pipe reduction and that the hand brake on the locomotive was then applied. The members of the crew alighted and entered the station. The engineer read train order No. 59 to the operator, signed the order, and it was made complete at 7:51 p. m. The members of the crew then proceeded to a restaurant located near the station. The collision occurred while they were in the restaurant.

As Extra 750A North was approaching the point where the accident occurred the speed was 45 miles per hour as indicated by the tape of the speed-recording device. The enginemen, the front brakeman, and a student fireman were in the control compartment at the front of the locomotive. The conductor and the flagman were in the caboose. The brakes of this train had been tested and had functioned properly when used en route. The headlight was lighted and the oscillating white headlight was operating. When the train was in the vicinity of Altus the conductor instructed the flagman to call the engineer by radio to remind him of the provision of the train order requiring that the train wait at Altus until 7:10 p. m., and to inquire whether Extra 828 South was in sight. The engineer responded and informed the flagman that Extra 828 South was not in sight. There was no further conversation between members of the crew on the locomotive and on the caboose before the accident occurred. The engineer said that he observed the headlight of Extra 828 South as the train passed the highway bridge. He immediately initiated an emergency application of the brakes and the speed of the train was reduced to 32 miles per hour when the collision occurred. The members of the crew in the control compartment of the first diesel-electric unit entered the rear units immediately before the collision occurred. The first the conductor and the flagman became aware of anything being wrong was when the brakes became applied in emergency.

The engineer said that he read and understood the contents of train order No. 59 when he received it at Cheyenne. However, he said that as the train was approaching Chugwater he overlooked the fact that the order required Extra 750A North to take siding at that point. He did not discuss the provisions of the order with either the fireman or the front brakeman at any time. Both the fireman and the front brakeman said they read the train order but did not understand that the train was required to take siding at Chugwater. The fireman said that he was inexperienced as a fireman and did not have a thorough knowledge of the operating rules. The fireman and the front brakeman had been employed in those capacities since October 5, 1957 and July 25, 1955, respectively. The conductor and the flagman said that they read and understood the contents of train order No. 59. However, they said that the collision occurred before they became aware that the front end of the train had passed the south switch of the siding.

Cause

This accident was caused by failure to obey right-of-track order.

Dated at Washington, D. C., this fifteenth day of January, 1959.

By the Commission, Commissioner Freas

(Seal)

H. D. McCoy,

Secretary