

RAILROAD ACCIDENT INVESTIGATION

Report No 3800

MIDLAND VALLEY RAILROAD COMPANY

BOKOSHE, OKLA

FEBRUARY 1, 1958

INTERSTATE COMMERCE COMMISSION

Washington

SUMMARY

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DATE	February 1, 1958	
RAILROAD	Midland Valley	
LOCATION	Bokoshe, Okla	
KIND OF ACCIDENT	Head-end collision	
TRAINS INVOLVED	Freight	Freight
TRAIN NUMBERS	41	42
ENGINE NUMBERS	Diesel-electric unit 152	Diesel-electric unit 153
CONSISTS	4 cars, caboose	12 cars, caboose
SPEEDS	30 m p h	25 m p h
OPERATION	Timetable and train orders	
TRACK	Single, 4° curve, 0.44 percent descending grade eastward	
WEATHER	Clear	
TIME	10 55 a m	
CASUALTIES	3 killed; 7 injured	
CAUSE	Overlap of authority of two opposing trains as a result of improper issuance of train order	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3800

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

MIDLAND VALLEY RAILROAD COMPANY

August 20, 1958

Accident at Bokoshe, Okla , on February 1, 1958, caused by an overlap of authority of two opposing trains as a result of improper issuance of a train order

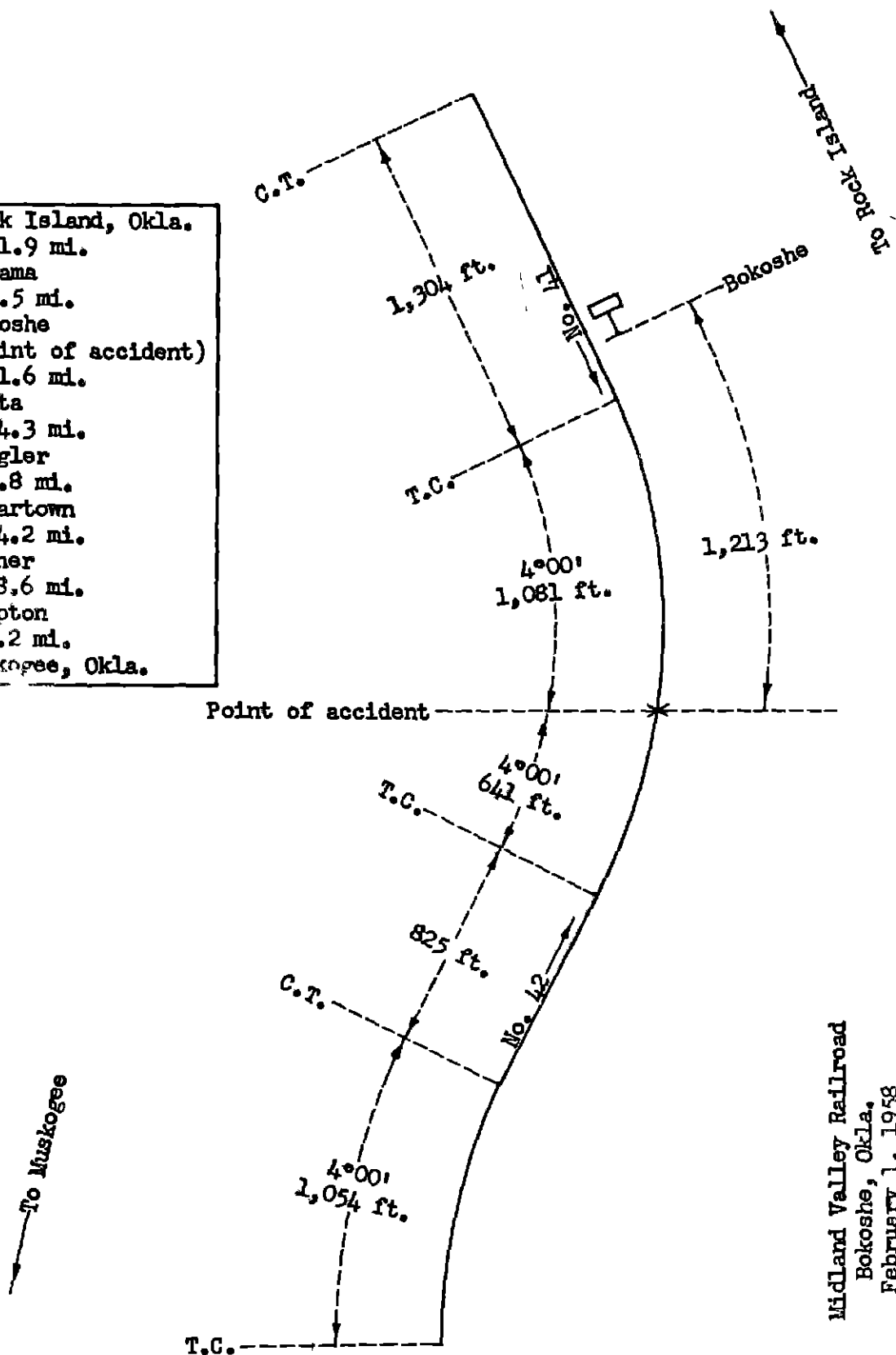
REPORT OF THE COMMISSION¹

TUGGLE, Commissioner

On February 1 1958, there was a head-end collision between two freight trains on the Midland Valley Railroad at Bokoshe, Okla , which resulted in the death of three train-service employees, and the injury of seven train service employees

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

o	Rock Island, Okla.
	11.9 mi.
o	Panama
	8.5 mi.
X	Bokoshe
	(Point of accident)
	11.6 mi.
o	Keota
	14.3 mi.
o	Stigler
	7.8 mi.
o	Briartown
	14.2 mi.
o	Warner
	18.6 mi.
o	Shopton
	1.2 mi.
	Muskogee, Okla.



Midland Valley Railroad
Bokoshe, Okla.
February 1, 1958

Location of Accident and Method of Operation

This accident occurred on that part of the Eastern Subdivision extending between Muskogee and Rock Island, Okla., 88.1 miles, a single-track line over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred on the main track at a point 20.6 miles west of Rock Island and 1,213 feet west of the station sign at Bokoshe. From the east there are, in succession, a tangent 1,304 feet in length, and a 4° curve to the right 1,081 feet to the point of accident and 641 feet westward. From the west there are, in succession, a 4° curve to the right 1,054 feet in length, a tangent 825 feet, and the curve on which the accident occurred. The grade for westbound trains is, successively, 0.37 percent ascending 491 feet, and 0.44 percent ascending 1,081 feet to the point of accident. The grade for eastbound trains is, successively, 0.44 percent descending 1,054 feet, 0.60 percent descending 825 feet, and 0.44 percent descending 641 feet to the point of accident.

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

SUPERIORITY OF TRAINS

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.

Direction is superior as between trains of the same class.

S-72 Regular trains in the direction specified by the timetable are superior to trains of the same class in the opposite direction.

S-89 Clearing time. Opposing Trains --An inferior train must clear the time (in timetable or train order) of an opposing superior train not less than 5 minutes before the leaving time of the superior train.

FORM OF TRAIN ORDERS

S-A

Fixing Meeting Points For Opposing Trains

(1) No 2 Eng 31 meet No 1 Eng 25 at B

Trains receiving these orders will run with respect to each other to the designated point and there meet in the manner prescribed by the rules.

This carrier's rules and instructions for train dispatchers read in part as follows:

36 OPERATOR'S STATEMENT AFTER ABSENCE --When an operator has been absent, train dispatcher must not accept his statement that a train has not passed and issue a restricting order addressed to such train. Under circumstances admitting of a doubt, train dispatcher must not attempt to restrict a train, either by day or by night, upon operator's statement that it has not passed.

Timetable instructions provide that eastbound trains are superior to westbound trains of the same class.

The maximum authorized speed for freight trains is 35 miles per hour

Description of Accident

No 41, a westbound third-class freight train, departed from Rock Island at 9 35 a m , 2 hours 20 minutes late, and arrived at Panama, 11 9 miles west of Rock Island, at 9 55 a m , where switching operations were performed. At Panama the members of the crew received clearance form A and copies of train order No 27 which read as follows

No 41 Eng 152 meet No 42 Eng 153
at Keota
No 41 hold main track at Keota

The order was made complete at 10 34 a m. Keota is located 20 1 miles west of Panama and 11 4 miles west of the point of accident. This train, consisting of road-switcher type diesel-electric unit 152, four cars, and a caboose, departed from Panama, the last open office, at 10 35 a m , 2 hours 40 minutes late, and while moving at an estimated speed of 30 miles per hour it collided with No 42

No 42, an eastbound third-class freight train, departed from Shopton, 1 2 miles east of Muskogee, at 8 30 a m , 30 minutes late. Switching operations were performed at Warner and Briartown, 19 8 miles and 34 0 miles east of Muskogee, and at Keota. This train, consisting of road-switcher type diesel-electric unit 153, 12 cars, and a caboose, departed from Keota about 10 30 a m , and while moving at an estimated speed of 25 miles per hour it collided with No 41

None of the equipment of No 41 was derailed. The diesel-electric unit and the first three cars of No 42 were derailed and stopped on or near the track. The fuel tanks of both diesel-electric units and the first car of No 42, a tank car loaded with gasoline, were ruptured. The escaping fuel oil and gasoline became ignited. Both diesel-electric units and the first car of No 42 were destroyed by the collision and fire. The second car of No 42 was badly damaged and the third car was slightly damaged.

The engineer and the front brakeman of No 42 and the fireman of No 41 were killed. The fireman, the swing brakeman, and the flagman of No 42, and the engineer, the front brakeman, and the flagman of No 41 were injured.

The weather was clear at the time of the accident, which occurred about 10 55 a m.

During the 30-day period preceding the day of the accident, the average daily movement over this line was 1 73 trains.

Discussion

The operator at Panama was regularly assigned between 8 00 a m and 5 00 p m , with 1 hour off duty for lunch, daily except Saturdays, Sundays and holidays. On Saturdays the assignment was between 10 30 a m and 12 30 p m. The operator at Stigler, 34 4 miles west of Panama and the next open office, was regularly assigned between 8 00 a m and 5 00 p m , with 1 hour off duty for lunch, daily except Saturdays and Sundays. This accident occurred on Saturday

On this subdivision only two trains, Nos 41 and 42, were scheduled. Their scheduled meeting point was Stigler and the scheduled time at that station was 9 31 a m. No 42 was superior to No 41 by direction. On the day before the accident occurred, the operator at Stigler was instructed by the chief dispatcher to report for duty at 10 00 a m on the following day to perform clerical work and the dispatcher had been so informed. The operator said he reported for duty at the assigned time and and soon afterward observed that the station clock had stopped. He requested the correct time from the dispatcher, which was 10 11 a m, and then asked the dispatcher the locations of Nos 41 and 42. He said the dispatcher informed him that No 42 would arrive at Stigler about 10 20 a m and that No 41 had departed from Rock Island at 9 35 a m. About 10 30 a m the operator at Panama advised the dispatcher that the station work for No 41 had been completed and that No 41 was ready for departure. The dispatcher then called the operator at Stigler and asked if No 42 had passed that station. The operator replied that No 42 was not in sight. The dispatcher then issued train order No 27 which established a meeting point between No 41 and No 42 at Keota. This order was made complete to the operator at Stigler at 10 34 a m, and to the operator at Panama at 10 35 a m.

After the crew of No 41 received copies of train order No 27, the train departed at 10 35 a m. The brakes of this train had been tested and had functioned properly en route. Approaching the point where the accident occurred, the estimated speed was 35 miles per hour. The engineer, the fireman, and the front brakeman were in the control compartment at the front end of the diesel-electric unit, and the conductor, the swing brakeman, and the flagman were in the caboose. The fireman and the front brakeman were killed in the accident, and the engineer, the swing brakeman, and the flagman were too seriously injured to be questioned during the investigation. It could not be determined at what point the employees on the diesel-electric unit first became aware that the track ahead was occupied by the opposing train. The conductor said that the first he became aware of anything being wrong was when the collision occurred. He did not know whether or not a brake application had been initiated immediately prior to the collision.

The crew of No 42 received clearance for their train at Muskogee about 8 00 a m and entered the main track from the yard at Shopton at 8 30 a m. The conductor said that cars were set off at Warner, Briartown, and Keota. He said No 42 departed from Briartown at 9 40 a m, 29 minutes late, passed Stigler, where the train-order signal indicated Clear, at 9 55 a m, 24 minutes late, arrived at Keota at 10 20 a m and departed at 10 30 a m, 20 minutes late. The brakes of this train had been tested at Muskogee and had functioned properly when used en route. Approaching the point where the accident occurred, the engineer, the fireman, the front brakeman, and the swing brakeman were in the control compartment at the rear of the diesel-electric unit, and the conductor and the flagman were in the caboose. The engineer was killed and the front brakeman, the swing brakeman, and the flagman were too seriously injured to be questioned during the investigation. The fireman said an 8-pound brake-pipe reduction was made some distance west of the point of accident to control the speed of the train approaching a grade crossing approximately 1,600 feet east of the point of accident. He saw No 41 approaching on the curve, immediately warned the engineer, and then alighted. He said the engineer made an additional brake-pipe reduction but he did not know whether or not the brakes were applied in emergency. Trees and buildings north of and adjacent to the track partially obstructed the view of the track ahead from the cab of a locomotive approaching from either direction.

No 42 was superior to No 41 by direction and, under the rules of this carrier, No 41 was required to clear the scheduled time of No 42 at any station not less than 5 minutes. Without a

train order, No 41 was not authorized to proceed from Panama when it was ready to depart about 10 30 a m , since No 42 then was 20 minutes overdue at Keota, the next station where time was shown. There was no open train order office between Muskogee and Stigler on the day of the accident. The dispatcher had determined from a yard clerk at Shopton that No 42 had departed from Shopton at 8 30 a m but he had no further knowledge as to the location of that train after it had entered the main track at Shopton since the crew had not informed him concerning their location at any time. No 42 was authorized by timetable to pass Stigler after 9 31 a m , 29 minutes before the operator went on duty at that station. In advancing No 41 by train order from Panama to Keota, 12 1 miles, the dispatcher assumed, because of work to be performed en route, that No 42 would not arrive at Stigler before 10 00 a m when an operator would be on duty to deliver the restricting order to the superior train.

No 42 passed Stigler at 9 55 a m 39 minutes before train order No 27 was made complete to the operator at Stigler and therefore was not restricted with respect to No 41. No 41 was authorized by train order No 27 to proceed to Keota. Under these circumstances a lap of authority was created and both trains simultaneously had authority to occupy the main track at the point where the accident occurred.

Cause

This accident was caused by an overlap of authority of two opposing trains as a result of improper issuance of a train order.

Dated at Washington, D C , this twentieth
day of August, 1958

By the Commission, Commissioner Tuggle

HAROLD D McCOY,
Secretary

(SEAL)