

BUREAU OF SAFETY

REPORT NO. 1951

Railroad: Chicago & North Western

Date: December 8, 1934.

Location: Owatonna, Minn.

Kind of accident: Collision

Train involved: Freight

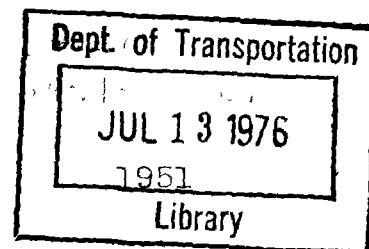
Casualties: Two injured

Summary of facts: Runaway; cars left standing on descending grade started moving of own accord and collided with light engine which had previously been detached therefrom.

Cause: Engine detached without first applying air brakes and insufficient number of hand brakes applied to hold cars.

HE
173
AE
V. 107

Bo 11
F
L. V. 107



INTERSTATE COMMERCE COMMISSION,

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN
ACCIDENT ON THE CHICAGO & NORTH WESTERN RAILWAY AT
OWATONNA, MINN., ON DECEMBER 8, 1934.

January 28, 1935.

To the Commission:

On December 8, 1934, there was a collision between a light engine and the runaway cars of its own freight train on the Chicago & North Western Railway at Owatonna, Minn., which resulted in the injury of two employees.

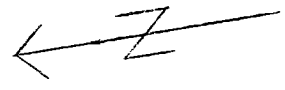
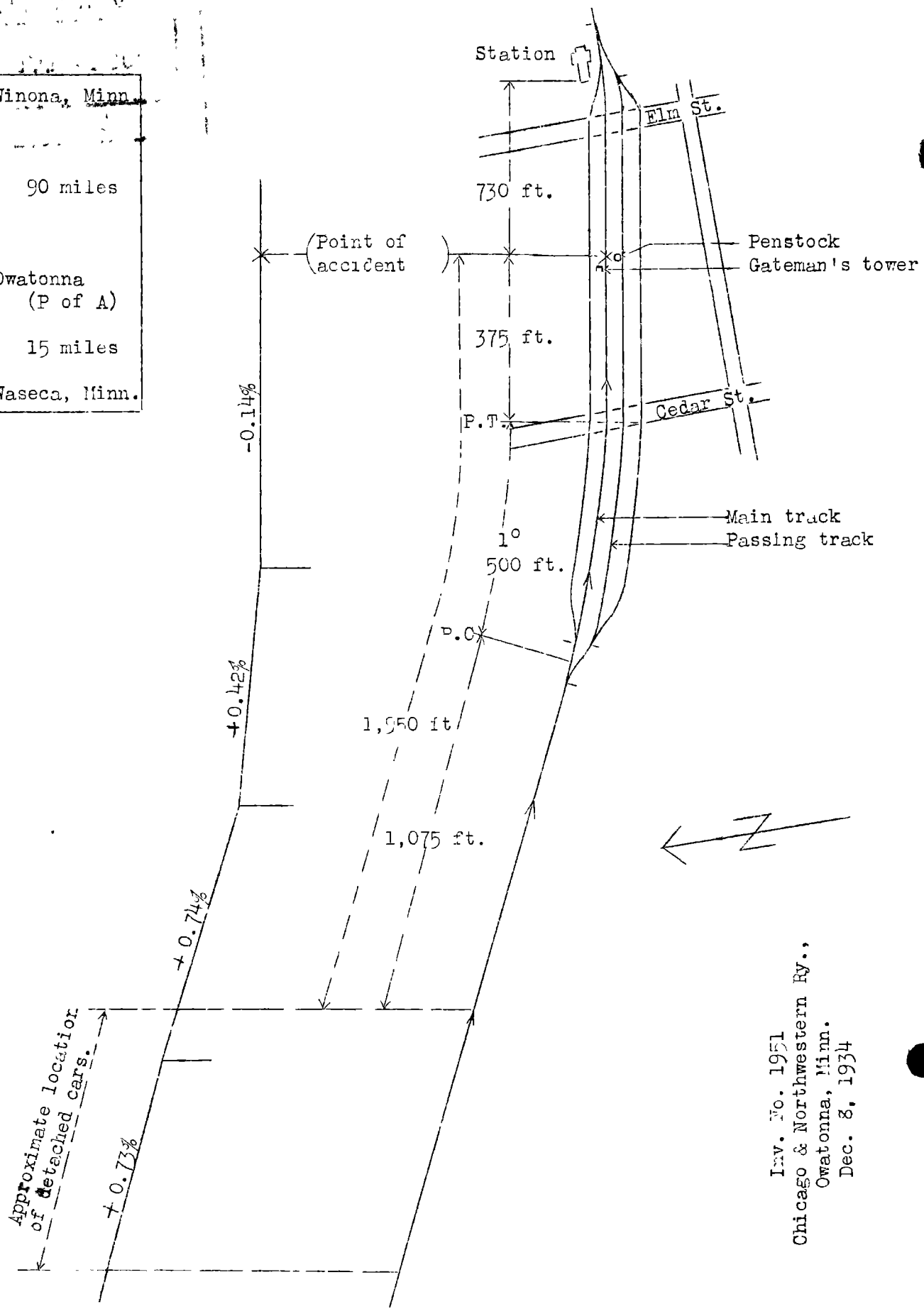
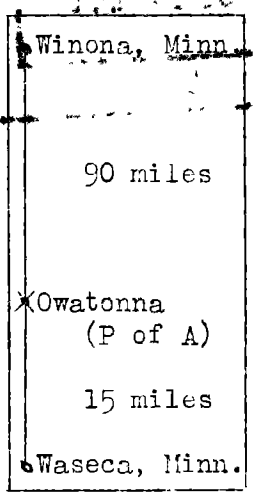
Location and method of operation

This accident occurred on Subdivision 7 of the Madison Division, extending between Waseca and Winona, Minn., a distance of 105 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time table, train orders, and a manual block-signal system. The collision occurred opposite a penstock located approximately 730 feet west of the station; approaching this point from the west, the track is tangent for a considerable distance, followed by a 1° curve to the left 500 feet in length and then 375 feet of tangent to the point of collision, this tangent extending for a short distance beyond that point. The gradient is 0.73 and 0.74 percent descending for about 4,000 feet and then is 0.42 percent descending for 600 feet, followed by 725 feet of 0.14 percent ascending grade to the point of collision, this latter grade extending some distance beyond that point.

The weather was clear and the temperature was about zero at the time of the accident, which occurred about 3:30 a.m.

Description

Train No. 482, an east-bound freight train, consisted of 37 loads, 4 empties, and a caboose, hauled by engine 2483, and was in charge of Conductor Madigan and Engineman Breed. This train left Waseca, its initial terminal, 15 miles west of Owatonna, at 2:40 a.m., according to the train sheet, 3 hours and 10 minutes late, and arrived at Owatonna at 3:20 a.m., at which point it was required by train order to meet west-bound



Inv. No. 1951
Chicago & Northwestern Ry.,
Owatonna, Minn.
Dec. 8, 1934

Train No. 495. The train stopped on the descending grade coming into Owatonna with the head car 1,950 feet west of the penstock, and after standing at that point about 5 minutes, during which time the opposing train was performing work, Engineman Breed decided to cut off the engine and proceed eastward for water. Neither the air nor the hand brakes were set on the cars in the train before cutting off, and subsequently the cars started to move down the grade of their own accord, colliding with the light engine at the penstock while traveling at a speed estimated to have been about 10 or 12 miles per hour.

The second and third cars were derailed to the north and knocked down a gateman's tower, while the fourth car was derailed to the south and knocked down the penstock; all three of the derailed cars remained upright and neither the engine nor the first car in the train was derailed. The employees injured were the fireman and the head brakeman.

Summary of evidence

Engineman Breed stated that on arrival at Owatonna he stopped far enough back from the passing track to permit the opposing train to double over, and then released the brakes. After deciding to take water he instructed the head brakeman to cut off the engine, which was done without reapplying the air brakes from the engine. In cutting off the engine it was necessary to slack back slightly but in doing this the engineman was not certain whether he moved the first car; during the time the train had stood there with the brakes released, however, the cars had not moved the engine. After having been cut off, the engine was moved down the hill to the penstock, accompanied by the head brakeman. When it arrived there the engine of the opposing train was on the passing track, spotted at the penstock; Engineman Breed began looking over his engine and was so engaged when the accident occurred. Engineman Breed said that he was positive his entire train was within yard limits at the time he stopped on the descending grade; he did not sound any signals on the engine whistle and did not hear any other engine sound its whistle. Engineman Breed further stated that during the time his train stood on the descending grade with the air brakes released he did not have the independent engine brake applied, nor were any hand brakes set before the engine was detached; it also appeared from the engineman's statements that no white lantern was left on the leading car nor were torpedoes placed on the rail in advance of the train, although all of this was required to be done under the rules. Engineman Breed said he usually stopped with the engine just west of Cedar Street, which is about 375 feet west of the penstock, and would leave the air brakes applied in order to hold the cars after the engine was

detached, but although familiar with grade conditions in this vicinity he did not give any thought to the possibility of the train running away in the present case.

Fireman Wolcott said that after his engine reached the penstock he was standing in the gangway, on the engineman's side, talking with the conductor of the opposing train, and the first knowledge he had of anything wrong was when the conductor shouted a warning of danger, at which time the runaway cars had rounded the curve at Cedar Street. Fireman Wolcott said that it was the practice to leave the train standing on the grade with the air brakes applied, provided the engine was cut off just west of Cedar Street; under such circumstances when within yard limits it was not the practice for the trainmen to set hand brakes on the leading car, or place torpedoes on the rail.

Head Brakeman Oglesby stated that when his train first stopped it was not the intention to take water; finally, however, the engineman said they would take water and told him to cut off the engine, and in doing so the engine took slack without moving the first car. Brakeman Oglesby knew that the engineman had applied the brakes when the stop was made but did not know that they had afterwards been released, and he made no inspection of any of the cars to see whether the brakes were applied nor did he open the angle cock on the first car, neither did he set any hand brakes. Upon reaching the penstock Brakeman Oglesby handled the spout for the fireman, and when the tank was almost filled he heard the conductor of the opposing train shout a warning of danger, the collision occurring immediately afterwards. Brakeman Oglesby said he did not place torpedoes on the rail in advance of the cars because they were in the yard and also not far away, and he could not say whether or not any member of his crew would have heard the torpedoes explode in time to have prevented the accident, even had they been placed as required. It further appeared from Brakeman Oglesby's statements that he did not have any understanding with the engineman as to whether or not the air brakes had been applied, and that he had never been cautioned by the conductor to set hand brakes, saying that it was common practice on his division to depend upon the air brakes to hold the cars on grades in different localities and that Owatonna was one of these locations.

Conductor Madigan stated that the engineman had been instructed to stop back far enough to give Train No. 495 a chance to double over. On arriving at Owatonna, Conductor Madigan decided to inspect a new brass under the rear car, but before he got out of the caboose he heard two short blasts on a whistle and then the flaman came back to the caboose and the train started, and shortly afterwards the accident occurred, at which time the train was moving, at a speed of 10 or 12 miles per hour.

Conductor Madigan did not know his engine had been cut off, and said that under such circumstances it is required that the air brakes be applied and hand brakes set at the forward end of the train; he thought, however, that an air-brake application would have held the cars safely for such a short period of time and said that in this case he would not have set hand brakes, but that he had used them when the cars were going to be left for a considerable period of time.

Flagman Kramer did not think it necessary to set hand brakes under the existing conditions, but said that whenever he worked in the capacity of head brakeman he always opened the angle cock on the leading car, after the engine was cut off, sufficiently to let out some of the air and make sure that the air brakes were applied on the cars, and he said he felt perfectly safe in leaving the cars under such circumstances for at least 20 or 25 minutes.

Assistant Superintendent Long stated that certain prescribed checks are made each month as to compliance with operating rules by employees; however, the rule in regard to displaying a lighted lantern on the leading car and the placing of torpedoes on the rail in advance thereof whenever the engine is detached at night and also the rule in regard to setting hand brakes on cars under such conditions, were not included. Observations are made in connection with the observance of rules, however, and about 18 days prior to the accident he was on a train which stopped a considerable distance from where it was to do its work and observed that after the brakeman cut off the engine and three cars he then turned the angle cock on the leading car ^{enough} to make sure that the air brakes were applied, as a matter of precaution, although the engineman had already applied the brakes; the location was such that it was not necessary to set hand brakes under the circumstances, the time of unloading being short and the grade light.

Conclusions

This accident was caused by failure to apply a sufficient number of hand brakes to hold the cars in the train left standing on a descending grade while the engine was uncoupled from the train to take water.

Rule 1098 requires that when an engine is to be detached from a train which is to be left standing on a grade where the train would be liable to start, a sufficient number of hand brakes must be set to hold the train before the air brakes are released or the engine cut off. Engineman Breed, after bringing the train to a stop on the descending grade, released the air brakes. After standing at this point about 5 minutes the head brakeman

upon instructions from the engineman cut off the engine but without setting any hand brakes, as required by rule, while the engineman did not reapply the air brakes before the engine was detached. The head brakeman thought the air brakes would hold the train, not knowing they had been released, while the engineman did not give any thought to the possibility of the cars running away as the train had been standing 5 minutes without any brakes being applied; Engineman Breed knew that the hand brakes had not been set and should have seen to it that the rules were observed.

It further appeared that no lantern was left on the leading car nor torpedoes placed on the rail, as required under rule 748; it is possible that had this rule been complied with, the explosion of the torpedoes would have given warning that the train was moving, in which event the accident might have been prevented.

It was stated by the assistant superintendent that employees frequently were checked for the purpose of ascertaining whether the rules were being obeyed. Rules 748 and 1096, however, were not on the list covering specific checks to be made, and the statements of the various employees indicated that it was not the practice to comply with rule 1096, but to depend upon the air brakes to hold the train. Any rule included in the rule book should be enforced and obeyed by all concerned, and necessary steps to that end should be taken by the responsible officials of this railway.

Respectfully submitted,

W. J. PATTERSON,

Director.