

INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE LINE OF THE OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY NEAR CELILO, OREG, ON DECEMBER 1, 1921

MARCH 2, 1922

TO THE COMMISSION

On December 1, 1921, there was a head-end collision between two passenger trains on the line of the Oregon-Washington Railroad & Navigation Company near Celilo, Oreg, resulting in the death of 3 passengers, 1 employee, 1 U S Marine mail guard, 1 Pullman porter, and 1 trespasser, and the injury of 65 passengers, 6 employees, 1 mail clerk, and 1 Pullman porter. This accident was investigated in conjunction with representatives of the Public Service Commission of Oregon.

LOCATION AND METHOD OF OPERATION

This accident occurred on the Fifth Subdivision, extending between Umatilla and The Dalles, Oreg, a distance of 98.6 miles which in the vicinity of the point of accident is a double-track line over which trains are operated by time-table train orders and an automatic block-signal system, installed to afford protection only for trains moving with the current of traffic. The accident occurred about $\frac{1}{4}$ mile east of Celilo, approaching this point from the west there is a 1-degree 30-minute curve to the right 3,716 feet in length, the accident occurring on this curve at a point 2,123 feet from its western end, approaching from the east there are 1,164 feet of tangent, followed by the curve on which the accident occurred. The grade is practically level. In this vicinity the track is bordered on the north by the Columbia River and on the south by bluffs ranging from 50 to 150 feet in height, the Columbia Highway, over which numerous automobiles travel, lies between these bluffs and the track. Approaching the point of accident, the view from the engineman's side of an eastbound engine is limited to about 600 feet, while from a westbound engine a view can be obtained from the fireman's side of the cab for a distance of approximately 800 feet. At night the range of vision is interfered with by various electric lights at the terminal of the Spokane, Portland & Seattle Railway, located at Fallbridge Wash, across the river and almost opposite the point of

accident, and also on account of the difficulty of distinguishing between headlights of automobiles and engines, or of knowing which track an approaching engine is using while rounding the curves in this vicinity.

On various occasions since September 19, 1921, trains of the Oregon-Washington Railroad & Navigation Company have been detoured from Portland, Oreg., to Fallbridge, Wash., over the tracks of the Spokane, Portland & Seattle Railway, thence across the Columbia River over a bridge of the Oregon Trunk Railway to the east switch of a track known as the Oregon Trunk Connection located about 1 mile west of Celilo on the south side of the Oregon-Washington Railroad & Navigation Company's track, this connection extends westward and connects with the eastbound main track

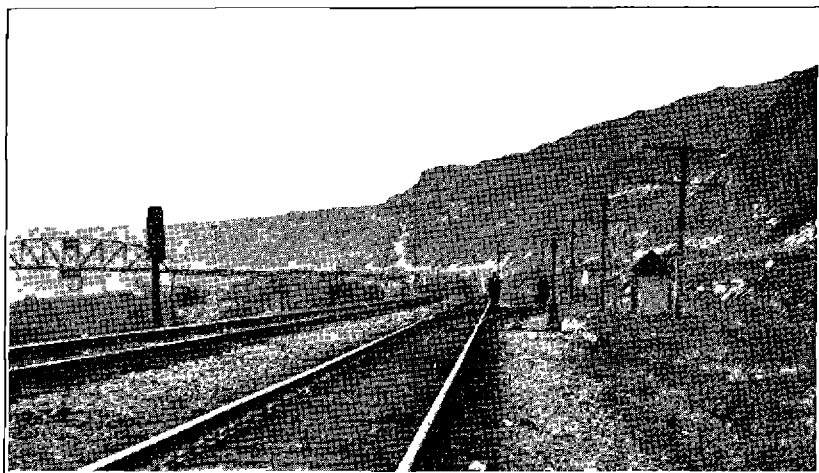


FIG 1—LOOKING EAST TOWARD MAIN LINE SWITCH AT OREGON TRUNK CONNECTION TELEPHONE BOOTH ON RIGHT

of the Oregon-Washington Railroad & Navigation Company. On the day of the accident and on several days subsequent to November 20, trains of the Oregon-Washington Railroad & Navigation Company were detoured over this route on account of a bridge having been washed out on their own line at Eagle Creek. Within a few feet of the west switch of this connection there is a telephone booth from which train crews may establish communication with the train dispatcher. The office of the train dispatcher of the Oregon-Washington Railroad & Navigation Company is ordinarily located at Portland, but on account of failure of telephone communication during the existence of the trouble necessitating the detouring of trains, it was temporarily moved to The Dalles, 12 miles west of Celilo. The heavy grade leading from the tracks of the Oregon-Washington Railroad & Navigation Company to that of the Oregon Trunk Railway via the connection, made it necessary to station a

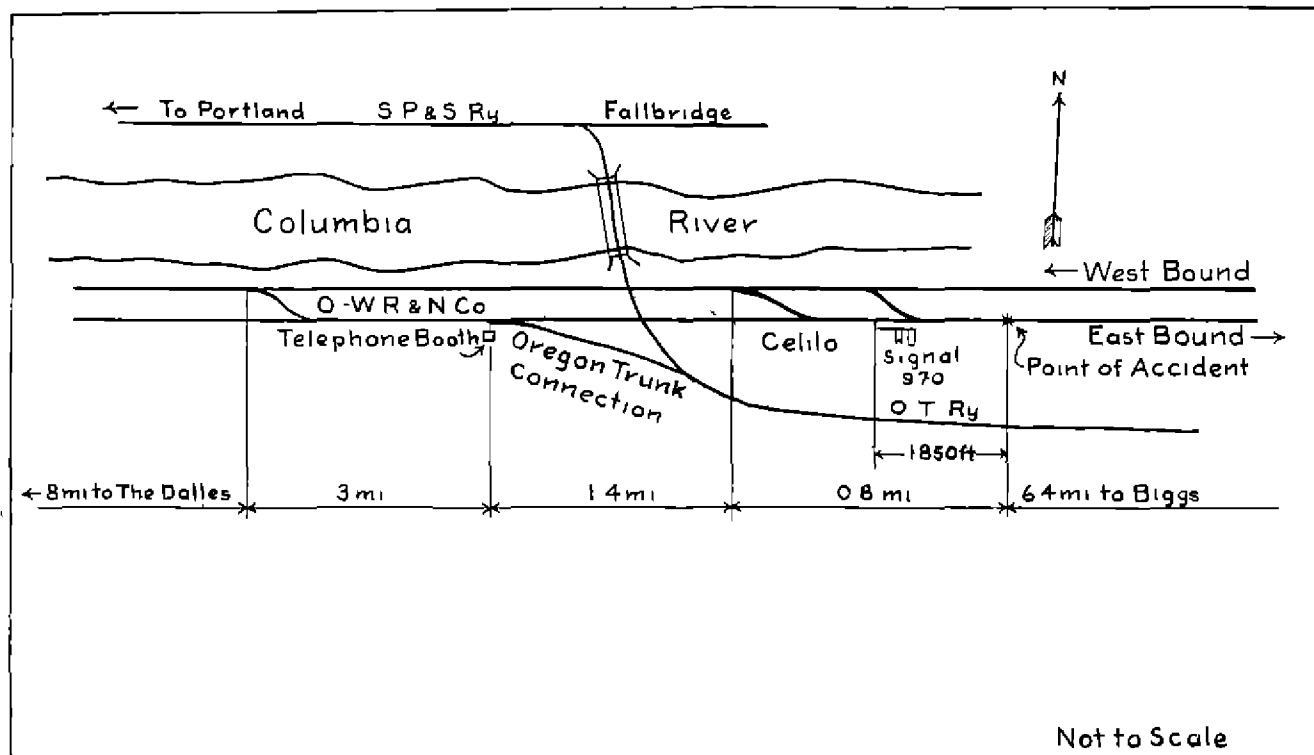


FIG 2—TRACK LAYOUT IN VICINITY OF OREGON TRUNK CONNECTION

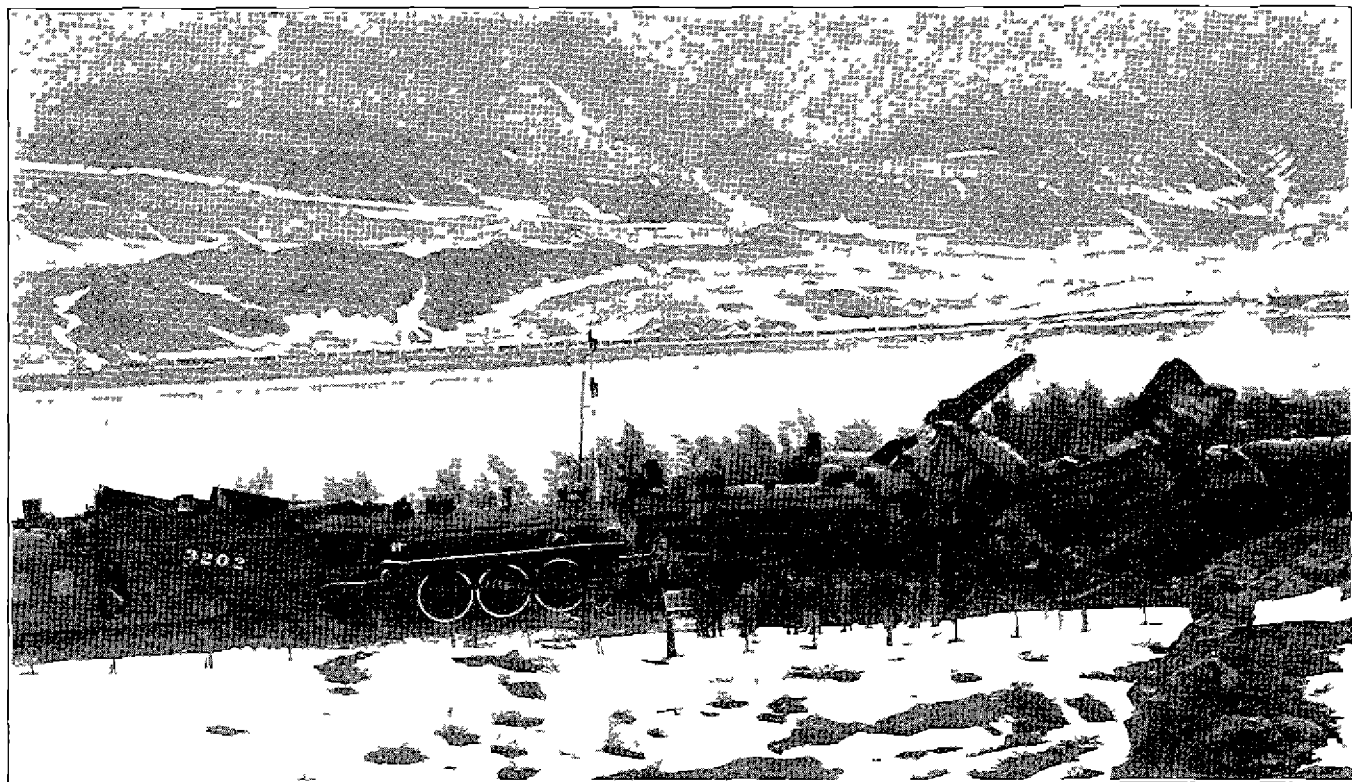


FIG 3 -GENERAL VIEW OF WRECKAGE NOTE TELESCOPING OF STEEL MAIL CARS BY DIFFERENT TYPES OF TENDERS

helper engine at this point to assist westbound trains. The weather was clear at the time of the accident, which occurred at about 12 30 a m.

DESCRIPTION

Westbound passenger train No 17, operating from Omaha, Neb , to Portland, Oreg , but at the time of the accident being run as extra 3211; consisted of 1 mail car, 1 dynamo and baggage car, 2 coaches, 1 chair car, 1 tourist car, 1 dining car, 3 Pullman sleeping cars, and 1 observation car, hauled by engine 3211, and was in charge of Conductor McCrary and Engineman Gardner. The cars were of all-steel construction, with the exception of the second sleeping car, which was of steel-underframe construction. At Biggs, 8.5 miles east of Celilo, the crew received a copy of train order No 284, on form 19, reading as follows:

Eng 3211 run extra Biggs to Oregon Trunk Connection about one mile west of Celilo. Run on Eastward track and has right over all opposing trains. This order is annulled two one 201 am.

Extra 3211 left Biggs on the eastbound track at 12 15 a m , and collided with the opposing passenger train while traveling at a speed estimated to have been about 30 miles an hour.

The eastbound train involved was ordinarily known as train No 12 operating between Portland, Oreg and Spokane, Wash , but was, at the time of the accident, running without time-table or train-order authority , it will hereafter be referred to in this report as train No 12. The train consisted of 1 combination mail and baggage car, 1 dynamo and baggage car, 1 smoking car, 1 coach, 1 tourist car, 2 Pullman sleeping cars, and 1 observation car, hauled by engine 3202 and was in charge of Conductor Allison and Engineman Allen. The tourist car was of wooden construction and the last two cars of steel-underframe construction, while the others were of all-steel construction. On the day of the accident this train had been detoured as previously described and reached Oregon Trunk Connection, from which point it was to proceed over its usual route, at about 12 20 a m. It backed through the connection to the eastbound main track, then started forward at about 12 22 a m , without having called the train dispatcher by telephone, and after having proceeded about 2 miles collided with extra 3211 while traveling at a speed estimated to have been about 20 miles an hour.

Engine 3211 was considerably damaged while the steel mail car was telescoped practically its entire length by the tender, which was of the Vanderbilt type, the second car was only slightly damaged, the third car came to rest on its side across the westbound main track in a badly damaged condition, while the fourth car had its front end telescoped about 12 feet. Engine 3202, of train No 12, was quite badly damaged, while the tender, which was of the usual square-end

type, telescoped the front end of the first car a distance of about 18 feet. The second, fourth, and fifth cars were considerably damaged, the head end of the fifth car, a wooden tourist car, being telescoped a distance of about 18 feet. The employee killed was the fireman of extra 3211.

SUMMARY OF EVIDENCE

Pilot Conductor Clark, who was in charge of the helper engine stationed at the connection, had been requested by Night Chief Dispatcher Walsh to report the arrival and departure of passenger trains from that point. As train No. 12 was coming over the bridge, he went to the telephone booth and notified the dispatcher of its approach. He then moved the helper engine out of the way, lined the switches for train No. 12 and signaled for it to back up. After this movement had been made, the helper engine was moved onto the connection, the switch closed and train No. 12 then started slowly forward. He was asked by the fireman if they were to be train No. 12 out of there and replied that he did not know, that train No. 4 had left with the indicators showing it to be train second No. 8, and also that the dispatcher had told him when he reported train No. 4 as coming across the bridge to tell the crew of train No. 4 they would go to Biggs and get their orders there; he then got on the steps of the engine of train No. 12 and told the engineman he supposed he would run to Biggs in the same way. The pilot conductor then got off the engine and as the train was passing, informed Conductor Allison that he would report the train by at 12:22 a. m., to which Conductor Allison replied, 'That's right.' Engineman Allen had intended to stop at the telephone booth and wait for Conductor Allison to call the dispatcher for instructions; however, he considered the information imparted to him by the pilot conductor as a verbal clearance from the dispatcher, and continued toward Biggs on receiving a proceed signal from the rear of the train. Conductor Allison stated that as the train was pulling out he was on the steps of the first car and understood Pilot Conductor Clark to say that he had already reported the train by at 12:22 a. m., indicating that he had talked with the dispatcher and that it was all right for the train to proceed; otherwise he said he would have personally called the dispatcher for orders, as he had done on another occasion on which he had been detoured. After the train departed Pilot Conductor Clark returned to the telephone booth, informed the dispatcher that the train had departed at 12:22 a. m. and was then told that extra 3211 was running westward on the same track.

Engineman Allen stated that speed was reduced on approaching a caution signal; he then saw the reflection of a headlight just before rounding a curve but thought it was from a train on the west-bound track; as the train rounded the curve this headlight shone in

his eyes and he did not realize it was on his track until the accident occurred

Night Chief Dispatcher Walsh on duty at The Dalles on the night of the accident, stated that he issued the order permitting the westbound train to use the eastbound main track between Biggs and the connection in order to avoid delay, expecting that the crew of the eastbound train would get into communication with him on its arrival at the connection, he also said he told Dispatcher Stiles to have Pilot Conductor Clark hold train No 12, inasmuch as train No 17 was using the eastbound track, this statement however, being contradicted by Dispatcher Stiles. Night Chief Dispatcher Walsh admitted that train order No 284 was not properly worded, should have been issued on form 31 instead of on form 19 that the rules permit trains to be operated against the current of traffic only when one track is blocked while in this instance the line was not blocked between Oregon Trunk Connection and Biggs, and also that it was in violation of rules to operate trains on verbal instructions.

The statements of Night Chief Dispatcher Walsh brought out the further information that when trains were detoured over the tracks of the Spokane, Portland & Seattle Railway it had been the practice to run westbound trains against the current of traffic from Biggs to Oregon Trunk Connection and that it was customary to tell conductors of eastbound trains on their arrival at the connection to proceed to Biggs, which is a day-and-night office, and get their orders at that point. The reason for running westbound trains against the current of traffic was to save the time which would be required to operate with the current of traffic to a cross-over some distance beyond the connection and then back up this distance on the eastbound track.

Dispatcher Walsh knew that the running of trains on verbal instructions was in violation of the rules, but had never called it to the attention of his superiors because he thought it was a safe practice inasmuch as no train could depart from Oregon Trunk Connection without calling the dispatcher on the telephone.

CONCLUSIONS

This accident was caused by the failure of Conductor Allison and Engineman Allen of train No 12 properly to communicate with the train dispatcher before leaving Oregon Trunk Connection and by Night Chief Dispatcher Walsh issuing a train order giving extra 3211 the right to run against the current of traffic from Biggs to Oregon Trunk Connection without properly protecting the movement. Sharing in the responsibility for the accident is Pilot Conductor Clark, who by his actions led the crew of train

No 12 to believe that he had been authorized by the train dispatcher to clear their train.

Rules 83, 83A, 83C, and D97 of the General Operating Rules are, in part, as follows:

83 A train must not leave its initial station on any subdivision, or a junction, or pass from double to single track, until it has been ascertained whether all trains due, which are superior, or of the same class, have arrived or left.

83A A train must not leave its initial station on any subdivision without a clearance card (Form 2643).

83C In starting trains from a point where there is no train register, or when the conductor and enginemen have been relieved of the duty of ascertaining what trains have arrived or left, the following form of train order will be used: "At six fifty 6 50 A M all overdue westward first class trains except No 85 have passed C" or "have arrived or left" as circumstances may require.

D97 On double track, extra trains may be run without train orders upon receipt of a clearance card addressed as such.

Under rule 83, the crew of train No 12 should not have occupied the main track at Oregon Trunk Connection without ascertaining whether all trains due of the same or superior class had arrived or left. The usual method of securing this information is by means of a train register. Where no register is provided, rule 83C requires a special form of train order to be issued to the train crew. In this instance neither register nor operator were provided, and the only alternative although not specifically required by rule or instructions, was for some member of the crew to assume the duties of an operator and call the dispatcher by telephone and secure the train order.

Under rule 83A, before departing from Oregon Trunk Connection its initial station for this subdivision on this date the crew of this train should have obtained a clearance card form 2643 stating whether or not there were any train orders for it.

Rule D97 permits extra trains to run with the current of traffic on double track without train orders upon the receipt of a clearance card addressing them as such.

In this instance none of these rules were complied with. Instead, the conductor and engineman of train No 12 assumed from the action of Pilot Conductor Clark in setting the switches, signaling them to back out and making the remark relative to reporting the departure of the train, that he had communicated with the dispatcher and had been authorized to instruct train No 12 to proceed without the necessity of then calling the dispatcher. Conductor Allison stated that on the trip previous he had called the dispatcher by telephone and the dispatcher had told him "Go on over to Biggs and get your orders," and in that instance he had complied with the dispatcher's instructions and left Oregon Trunk Connection without train orders.

01 clearance card. Investigation developed that such instructions from the train dispatcher and compliance by train crews were not uncommon at this point in connection with detour movements.

Night Chief Dispatcher Walsh himself was guilty of gross violation of rules and instructions when he issued train order No 284. Rule 23 of the Special Instructions for Train Dispatchers reads as follows:

Trains must not be moved against the current of traffic except when the track which should be used is obstructed.

In this instance Night Chief Dispatcher Walsh violated the rules without any excuse except that it would save possibly 40 minutes' delay to train No 17. At Celilo there is a crossover which if used by train No 17 would have resulted in the train running against the current of traffic but 1.4 miles, and at Dune about 3 miles west of Oregon Trunk Connection there is another crossover which could have been used by train No 17 and thus avoid running against the current of traffic at all.

When it becomes necessary to run trains against the current of traffic on a double-track line, the principles of safe train dispatching require that before the order is completed to the inferior train, signatures must first be obtained from all engines or trains occupying either track within the limits of the order and that the order be placed at junction points where trains are likely to enter from a connecting line. At the time train order No 284 was issued, there was a helping engine stationed at Oregon trunk connection and train No 12 was due to arrive from a connecting line. With no operator at Oregon trunk connection to receive and deliver a train order, safe practice under these conditions would have prohibited the running of extra 3211 against the current of traffic by train order.

Instead of complying with these principles, Night Chief Dispatcher Walsh issued and completed train order No 284 to the inferior train, extra 3211, permitting it to use the opposite track without making any attempt to give a copy to the helping engine or to train No 12, which was expected to arrive shortly. In issuing this order the only protection against opposing movements was the placing of this order addressed to all eastbound trains at "DK," the dispatcher's office at The Dalles, which is not equipped with a train-order signal and which was not a clearance station for passenger trains. "WH" office, the clearance station for passenger trains more than a mile distant from "DK," did not have a copy of the order. Night Chief Dispatcher Walsh claiming that he could not get "WH" on his dispatching circuit, but intended to issue the order later to "WH" over the city telephone. The entry of this order in the dispatcher's order book is irregular, and raises a doubt as to whether the order was even put out at "DK" office prior to giving it to extra 3211 as required by the rules.

In addition to these violations by Night Chief Dispatcher Walsh, there were other minor violations, which, while not responsible for the accident, reflect the general situation with respect to the observance of the rules. He issued train order No 284 on form 19, while the rules specifically require that this kind of order be issued on form 31. The rules also require that the exact forms prescribed by the book of rules shall be used when applicable, yet in issuing this order Night Chief Dispatcher Walsh deviated from the prescribed form and used a form of his own making for no apparent reason.

The responsibility of Pilot Conductor Clark, though not fixed by rules, is nevertheless great. While his intentions undoubtedly were the best, his conduct was certainly such as to mislead the crew of train No 12. If Pilot Conductor Clark intended that his actions and the information he gave to the crew of train No 12 should be interpreted by them as authority to proceed without communicating with the dispatcher, he knew that such authority was unwarranted. On the other hand, if no such effect on the crew of train No 12 was intended by him he knew when the train started to proceed without any member of the crew calling the dispatcher that his action had been so construed and it then became his duty to stop the train and correct the false impression.

The investigation of this accident discloses a disregard for rules and many loose operating practices for which the operating officials of the Oregon-Washington Railroad & Navigation Company are responsible.

The detouring of trains at this point was an irregular operation, but not an uncommon one. One of the elementary principles of good railroad practice requires that when irregular movements are made, and it applies with particular force to detouring trains, every precaution should be taken and every safeguard thrown around such movements to insure their being made with safety. The first step to be taken in this case should have been to place a competent operator at Oregon Trunk Connection to receive orders and handle instructions to train crews. However, no operator was provided and the rules could not be literally complied with, neither were there any special instructions issued outlining the situation and providing a method of procedure or even requiring or calling the attention of train crews to the necessity and importance of communicating with the dispatcher before occupying the main track.

The practice of requiring train employees to perform the exacting duties of an operator is dangerous and can not be too strongly condemned. This practice appears to have grown to such an extent on this railroad that it has been the subject of controversy between the train employees and the management. The following excerpt

from the testimony of Superintendent Buckley clearly shows his attitude in the matter

Question Is there any reason or necessity occurring to you why there should have been an operator placed at the Oregon Trunk Connection?

Answer No The conductor can get anything an operator gets He can copy an order the same as an operator

The distinction between the duties of an operator and those of the members of a train crew were clearly recognized by Congress, in enacting the so-called hours-of-service law, by providing for a much shorter legal period of duty for operators than for train crews As a rule, train employees are not fitted by training, and the nature of their work does not adapt them to perform the duties of an operator In this instance there was no emergency, trains had been detained for several days and it was known when these trains started out from their initial terminals that at this point the conductor would be required as a part of his regular work to perform the duties of an operator

The practice of running trains against the current of traffic is dangerous, and even when all safeguards are used, should be limited to instances of absolute necessity That the inherent danger of such movements is recognized by the management of the Oregon-Washington Railroad & Navigation Company is evidenced by the promulgation of rule 23 in the Special Instructions to Train Dispatchers However, from the statement of Night Chief Dispatcher Walsh it appears that it was customary to run trains over the opposing tracks at this point and for no other reason than to save time The division officials at least must have been cognizant of this practice This is but another instance in which operating officials encourage the violation of their own rules when such violation will subserve their own interests

It seems to have been no uncommon thing for trains to leave Oregon Trunk Connection without written train order or clearance card and proceed 8 miles on the main track with nothing more formal from the train dispatcher than his verbal statement over the telephone of "Go over to Biggs and I'll fix you up there" In fact, a strict compliance with the rules was impossible because operating officials did not see to it that blanks or other stationery were kept at this telephone booth for properly receiving train orders or clearance cards Under such a loose system of operation, it is not surprising that the crew of train No 12 assumed that Pilot Conductor Clark had authority to instruct them to proceed

The conditions at the dispatcher's office at The Dalles were such that they tended to result in anything but safe and efficient operation The dispatcher's office had been temporarily transferred from Portland to The Dalles about 10 days previously, but the full equip-

ment had not been transferred. At The Dalles the dispatchers were trying to dispatch trains without any means provided for calling stations on the telephone dispatching circuit, having to revert to the telegraph as best they could for that purpose. With respect to the actual dispatching of trains the investigation disclosed that at the time train order No. 284 was sent, Dispatcher Dolan, a new man, was technically on duty, although orders were being issued and signed by Dispatcher Stiles, another new man who was breaking in under Dispatcher Dolan. Night Chief Dispatcher Walsh, it appears, also endeavored to assist by personally transmitting train order No. 284 because neither of the dispatchers were familiar with the prescribed form and there was no rule book handy. Even Night Chief Dispatcher Walsh did not succeed in issuing the order in proper form, and he was not himself familiar with the situation, as evidenced by his own statement to the effect that when he issued train order No. 284 he was under the impression that train No. 12 had been annulled. The action of Night Chief Dispatcher Walsh in sending train order No. 284 itself resulted in a violation of the hours-of-service law. Dispatcher Stiles was ignorant of rule 23, of the Special Instructions to Train Dispatchers. It also appears that he did not have a correct understanding of Form E, Time order. He had issued an order requiring train No. 12 to wait at The Dalles until 2 10 a. m., but, notwithstanding this order, it was his opinion that it would not restrict the movement of train No. 12 east of Oregon Trunk Connection before 2 10 a. m. According to Pilot Conductor Clark the train dispatcher had told him on the night of the accident to tell the conductor of train No. 4 that they would go to Biggs to get their orders. These occurrences all indicate that the train dispatching at The Dalles was being done in an irregular and haphazard manner.

The operating officials of the Oregon-Washington Railroad & Navigation Company can not be too severely criticized for their failure to provide a safe method of operating trains between Oregon Trunk Connection and Biggs. This is not an isolated case involving the improper handling of a single train, but represents a practice which has grown up as a result of detouring trains with considerable frequency. These officials can not escape their responsibility in connection with this accident on the ground that they were ignorant of these conditions and practices. It was their duty to know of them. The promulgation of rules and instructions is but the smallest portion of their duties, only when they know that such rules and regulations are being fully complied with can they be said to have discharged their duty.

Respectfully submitted

W. P. BORLAND,
Chief, Bureau of Safety