BUREAU OF SAFETY

REPORT NO. 1939

Railroad: St. Louis & Southwestern and Louisiana & Arkausas

Date: October 22, 1934

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Location: Shreveport, La.

Kind of accident: Side collision

Trains involved: Two yard engines

Casualties: 1 killed

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Summary of facts: Cross-over switch left opened and unattended while car was set out in yard; on return movement fireman assumed engineman knew cross-over was occupied and did not warn engineman in time to avoid accident; engineman started cross-over movement without knowing way was clear.

Cause of accident: Failure of crew to exercise proper precautions before making a cross-over movement.

## INTERSTATE COLLERCE COLLISSION

REPORT OF THE DIRECTOR OF THE BURFAU OF SAFETY CONCERNING AN ACCIDENT WHICH OCCUPRED AT THE INTERSECTION OF THE TRACKS OF THE ST. LOUIS SOUTHWESTERN RAILWAY AND THE LOUISIANA & ARKANJAS RAILWAY IN THE YARD AT SHREVEFORT, LA., ON OCTOBER 22, 1934.

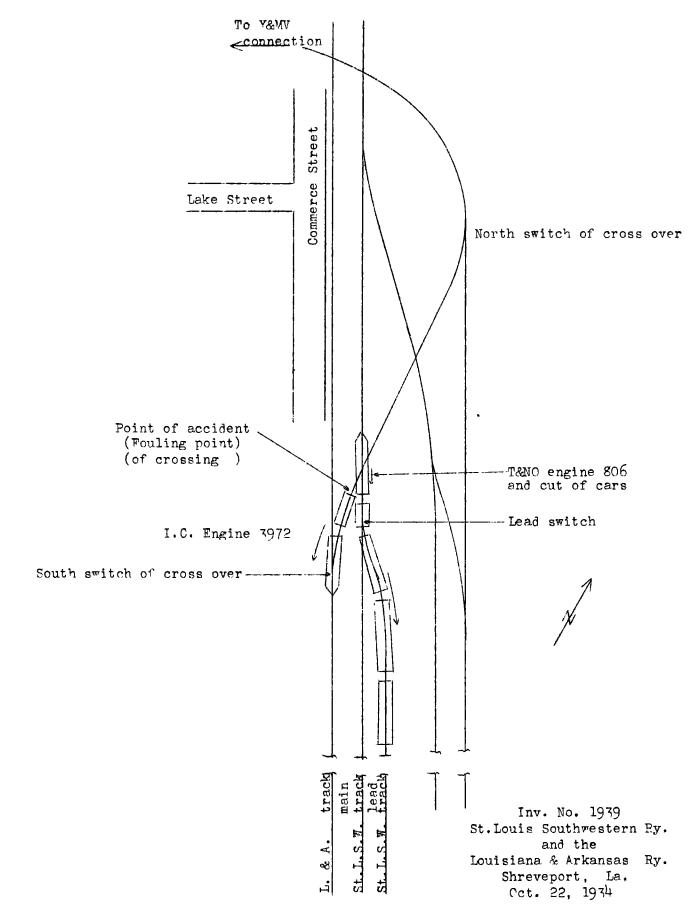
December 11, 1934.

To the Commission:

On October 22, 1934, there was a side collision between an Illinois Central yard engine, which was making a back-up movement light over the track of the Louisiana & Arkansas Railway, and a Texas & New Orleans yard engine which was making a back-up movement, shoving a cut of cars, over the track of the St. Louis Southwestern Railway, at the intersection of the tracks of these roads in the yard at Shreveport, La., which resulted in the death of one employee. The railroads mentioned in this report are the Illinois Central, Yazoo & Mississippi Valley, Louisiana & Arkansas, St. Louis Southwestern, and Texas & New Orleans, and are hereinafter referred to as the IC, Y&MV, L&A, StLSW, and T&NO, respectively.

Location and method of operation

This accident occurred within yard limits at a crossing of the tracks of the StLSW and L&A; in this vicinity movements over both railways are governed primarily by the book of rules and special instructions. In the immediate vicinity of the point of accident the StLSW main track extends northwest and southeast and parallels the L&A on the east, and the intersection is formed by a long cross-over, 362 feet in length, which extends north and south across the StLSW main track and joins the L&A with the Y&MV connection. The south switch of the cross-over is a facing-point switch for northward movements and leads off the L&A to the east, with a low switch stand leads off the cast side of the track which different plays a red indication when the switch is open; the accident occurred just north of the south switch of this cross-over, at its fouling point with the crossing over the StLSW track.



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At a point 44 fect south of the center line of the crossing the StLSW lead track connects with its main track, the leadtrack switch being a trailing-point switch for northward movements and the lead track paralleling the main track on the east. Shreveport yard is located south of the intersection involved; approaching the crossing from that direction on either railway, the track is tangent for a considerable distance.

The weather was clear at the time of the accident, which occurred about 8:20 a.m.

## Description

T&NO engine 806, headed north, pulling a cut of 21 cars and a caboose, was manned by a mixed StLSW and T&NO switch crew and was in charge of StLSW Engine Foremon Irvine and T&NO Engineman Calvit. It moved northward from Shreveport yord over the lead track and thence to the StLSW main track and stopped with the engine and one car north of the crossing; after this movement it started to make a back-up movement southward, in order to make a flying switch, and while this was being done, the speed being variously estimated at from 4 to 12 miles per hour, the left side of the ongine was struck on the crossing by IC engine 3972.

IC engine 3972, headed south, in charge of Y&MV Engine Foreman Chambers and Y&MV Engineman Gray, after setting out a car in the L&A yard, made a northward back-up movement, light, over the L&A track, entered the south switch of the cross-over, which had been left open and unattended while the car was being set out, and on reaching the fouling point of the turnout with the crossing over the StLSW track, while moving at a low rate of speed, the left rear corner of the tender struck the side of T&NO engine 806.

The left side of the cab of T&NO engine 806 was torn off and the engine was otherwise damaged, the blow-off cock and the main reservoir air-brake pipe being broken; it stopped at a point 550 feet south of the point of the accident, with the tender and first car derailed. The left rear corner of the tender of IC engine 3972 was bent in, the engine was slightly damaged and was driven southward from 15 to 30 feet. The employee killed was the fireman of T&NO engine 806.

## Summary of evidence

Engine Foreman Chambers, of engine 3972, was in the Market Street yard, a short distance away, and did not actually see the accident happen. He said that the movement of setting out the car in the L&A yard was of regular occurrence, and while the south cross-over switch normally is kept in closed position yet it is customary for all lines to leave the switch open when making deliveries to the L&A until the engine has returned to the cross-over. Immediately after the accident he round the south switch in that position; under Y&MV rules, however, the switch should have been closed. There was no requirement that a member of the switch crew ride on the leading footboard; it is required, however, that crews stop and ascertain definitely that the way is clear before attempting to move over crossings, and this requirement of the rules had been obeyed when he was with the crew.

Engineman Gray, of engine 3972, stated that while backing northward toward the cross-over, after setting out the car in the L&A yard, he was looking out of the window on his side of the cab in the direction the engine was moving; his view was cut off by the tender of his engine and at no time did he see engine 806 with the cut of cars either when looking across the cab toward the StLSW tracks or when looking ahead toward the cross-over. He said that Fireman Slith was riding on the left seat box during the entire course of the back-up novement, and that he saw the fireman looking back along that side and therefore did not ask whether the way was clear, depending on the fireman to maintain a proper lookout and give angle warning of Engineman Gray knew that the south switch had been any danger. left lined for the cross-over and unattended and said that as the engine backed toward it at a speed of about 10 miles per hour he saw the switch target displaying a red indication. Switchman Ryan was riding on the front footboard of the engine, on the engineman's side, and on nearing the switch the engineman reduced speed to about 6 miles per hour in order to let the switchman get off and close the switch after the engine had backed through it, but just after the tender passed over the switch and upon the turnout, and while the engineman was watching to see the switchman get off, the fireman shouted a warning of danger, whereapon the engineman immediately applied the air brokes in emergency and reversed the engine. the accident occurring immediately afterwards. Engineman Gray said that following the accident his fireman told him that he thought the switchman had closed the switch. Engineman Gray further said that the novement was of almost doily occurrence and that he was thoroughly familiar with conditions in the

yard; he knew he was required to ascertain definitely that the way was clear and he assumed that that was the case when the fireman did not say anything about the crossing being occupied. It was the practice on the IC and Y&MV to provide stop signals at crossings where a stop was required, but he said that the StLSW crossing had always been considered as a lead track, with no stop board, and it was not customary for crews to stop before proceeding over it, the engineman saying that on the southward trip with one car he had stopped with the car about on the crossing while Switchman Ryan went chead and opened the south cross-over switch.

Fireman Smith, colored, of engine 3972, stated that he was on his seat box when approaching the cross-over, saw the switch target displaying a red indication, and knew that the switch was lined for the cross-over; he also saw the crossing occupied by engine 806 and assumed that his englueman also saw them and would stop before reaching the switch. When the rear end of the tender resched a point about half a car length south of the switch, or where he thought the engine should have stopped, and while his head was outside the cab window, he said to the engineman, in an ordinary tone of voice, "that will do", but the engineman did not apply the brakes; he hurriedly looked toward the engineman to see why he was not stopping and at that time the engineman was looking toward the front end of the engine. The fireman again looked at the switch target, thinking that since the engineers was not stopping the switchman might have lined the switch for the straight track; the target still was displaying a rod indication, however, and the tender entered the open switch: the fireman then shouted a warning of danger and the engineman applied the brakes in energency and reversed the engine too late to avert the accident.

Switchman Ryan, of engine 3972, stated that on the southward movement a stop was made on the cross-over while he opened the south switch, which was left open, as customary, while the car was set out in the L&A yard. On the return movement he rode on the front footboard of the engine, on the engineman's side, and saw the cut of cars on the StLSW lead track but was not concerned about them as he saw cars being moved on that track practically every day, and he made no effort to see whether the crossing was clear. As his engine neared the south switch the speed was reduced to a very low rate, at which time Engineman Gray was looking toward the rear of the tender, and before reaching the switch points Switchman Ryan stepped off the footboard so as to be in position to close the switch after his engine backed through it, assuming that in the event the crossing was not clear the engineman would stop. Switchman Ryan said that as a matter of safety he should have ridden on the rear footboard of the tender and then he would have been in position to see whether the crossing was occupied and, if necessary, to apply the brekes by opening the angle cock at the rear end of the tender. It also appeared from his statements that it was not customary to stop for this crossing. Switchman Southerland had remained at the north switch of the cross-over while the car was being set out, this being in accordance with bulletin instructions either to restore the switch or leave a man in charge of it; he did not actually see the accident needr, as engine 806 and the cut of cars were occupying the crossing and out off his view of his own engine.

StLSW Engine Foreman Irvine, of engine 806, stated that he was riding on the caboose being handled by that engine and did not see engine 3972 prior to the accident. It was the practice on his road to ascertain definitely that the way was clear before using this particular crossing. StLSW Switchman E. M. Robinson was cutting off the caboose while T&NO Switchman B. Robinson handled the switches for the caboose track, and neither of these employees knew there was anything wrong until after the accident had occurred.

T&NO Enginemen Calvit, of engine 606, stated that he had received a signal from his engine foreman to kick the caboose in on the caboose track and it was while this beck-up movement was being made, at a speed of about 10 or 12 miles per hour and with the engine working stear, that the accident occurred; he was on the opposite side of the eab from engine 3972, with Fireman Ravenna sitting on the fireman's seat box, but as the engineman was looking back along his even side for signals from the switch crew he did not observe the fireman after the backup movement was started and did not receive from him ony warning of danger. At the time his engine pulled the cut of cars northward, however, and before proceeding over the crossing, the fireman had informed him that the way was clear on that side.

Superintendent Pettigrew, of the StLSW, said that in making some changes in 1933 it became necessary to construct this cross-over; the understanding was that the switches would be kept closed, and on this account it would be necessary for crews to stop before using the cross-over, this appearing to make unnecessary any provision for special protection for the two StLSW tracks intersected by the cross-over. Trainmaster Chandler, of the Y&NV, said the crew of engine 3972 would be governed by the rules of the road over whose track they were operating. He did not approve of Y&MV yard crews making movements of the kind here involved with only one switchman accompanying the engine and said a movement made in this manner was without his knowledge.

Superintendent Johnson, of the L&A, said Y&MV employees had not been examined on the L&A rules and he did not think it necessary so far as novements of this kind were concerned, in view of the fact that rules 93 and 98, the latter relating to crossings, junctions, etc., were practically identical. However, L&A rule 98 requires a stop to be made at crossings where there are no gates or interlocking, whereas Y&MV rule 98 requires trains to approach crossings prepared to stop unless switches are lined, signals at proceed, and track clear. Superintendent Johnson also said that Y&MV crews, not instructed on L&A rules, would be operating under their own rules; in this case the Y&MV crew should not have left the switch open and that in doing so they violated their own rules as well as those of the L&A.

Subsequent to the accident a test made at the point of accident developed the facts that the engineman of engine 3972 sitting on his seat box in normal position, looking from the side cab window, could have seen the switch and cars on the crossing when 1,553 fact from the center of the crossing; when 1,218 fact distant he could see objects only at intervals, and when 517 feet distant they disappeared from view. It is questionable whether engine 806 had reached the crossing while engine 3972 was far enough away for its engineman to have a clear view. Measurements further indicated also, taking into consideration damage and marks on the engines, that engine 3972 moved northward from 12 to 17 feet after first coming in contact with engine 806.

## Conclusions

This accident was caused by failure of the crew in charge of IC engine 3972 to observe proper precautions before starting a movement over a crossing with another line.

The investigation disclosed that during a switching operation the south cross-over switch had been left open and unattanded, which was contrary to rule but apparently in accordance with the prevailing practice at this point; the fireman knew that the crossing was blocked, but assuming that the

engineman also was aware of that fact he failed to give the enginemen adequate warning until it was too late to avert the accident; and the engineman, whose view was obstructed, assumed that the way was clear as the firchan gave him no warning, and proceeded to make a movement over the crossing without definitely knowing that the way was clear. While there were some differences in the rules of the various railroads applicable to the situation involved, proper observance of either the rule requiring the switch to be closed or attended, or a stop before proceeding over the crossing, or that the way must be known to be elear before proceeding over the crossing, would have averted this accident. In this area of congested traffic it is essential to safe operation that the requirements of rules be clearly and uniformly understood by all employees of the various companies who operate over the tracks of the various roads concerned, and that necessary supervision be provided to insure that the prescribed practices are being followed. Conditions and practices disclosed by this investigation require prompt corrective measures by responsible railroad officers.

Respectfully submitted,

W. J. PATTERSON,

Director.