

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
ELGIN, JOLIET AND EASTERN RAILWAY AT CHICAGO, ILL ,  
ON MARCH 23, 1929.

July 22, 1929

TO THE COMMISSION:

On March 23, 1929, there was a derailment of a switching transfer on the Elgin, Joliet and Eastern Railway at Chicago, Ill , which resulted in the death of one employee and the injury of one employee.

Location and method of operation

This accident occurred in the South Chicago yard on the G. & N. Division, which is located adjacent to the shore of Lake Michigan and extends southward from 79th street to the Calumet River at the foot of 91st street. This yard consists of three main yards, A, B, and C, extending from north to south, which in turn are sub-divided into smaller units. Each of these yards has lead tracks used by yard engines for switching purposes and the movement of cars from one yard to another. The accident occurred between 86th and 87th streets at a double-slip switch located near the northern end of that part of yard C known as the slab yard. Train movements are governed by signals given to the engine crews by switchmen, yardmasters and switchtenders. The track is level at the point of accident and is well maintained.

In the vicinity of the point of accident there are three double-slip switches, the north switch, known as Mill yard puzzle, the center switch, known as the west main puzzle, and the south switch, known as the train yard puzzle. The west main puzzle, the switch involved, is a No. 7 double-slip switch with movable center points of manganese steel, the points having an opening of  $4\frac{1}{2}$  inches. There are two switch stands and the levers of these stands are provided with a guard or bracket on the side which prevents the movable center points from being thrown against a movement being made through them. When the two switch levers are thrown towards the north, the route is lined through the center of the switch for a north or southbound movement, when the levers are thrown toward the south the route is lined through the center for a through opposing movement; the throwing of one switch lever sets the route around the curve of the switch from one through route to the other through route.

The weather was clear at the time of the accident, which occurred at about 5.20 p.m.

#### Description

The switchman transfer consisted of 30 cars, hauled by engine 306, an 8-wheel switcher, and was in charge of Conductor Tolley and Engineer Kieser. These cars were being hauled from yard A, via yard B to track 3 in the slab yard, a unit of yard C, and the train was moving over the west main puzzle switch when it was derailed while traveling at a speed estimated to have been between 6 and 8 miles per hour.

The engine was derailed to the left or east, struck in between the ends of two cars on an adjoining track, and then turned over on its right side across the train yard puzzle switch at a point about 50 feet from the first point of derailment. The tender was also overturned to the right, and the forward truck of the first car was derailed. The end trucks of the two cars struck by the engine were also derailed. The employee killed was the fireman and the employee injured was the engineman, both of engine 306.

#### Summary of evidence

Conductor Tolley stated that his train started from yard A, proceeded through yard B, came almost to a full stop at 36th street, and after receiving a signal from the yardmaster started through the puzzle switches. He said he was riding on the front footboard on the left side of the engine; he noticed the puzzle switches were set all right but as they proceeded over the west main puzzle switch the engine was derailed at the frog point. Conductor Tolley said he jumped off and ran toward an adjoining track on the left, but realizing that the engine was coming behind him he turned around, jumped back on the engine, climbed over to the other side and jumped off. The frog points had seemed to be all right as his engine approached them.

Switchman Nellis stated that he was also riding on the front footboard, on the right side of the engine, he saw Yardmaster Dunbar line the switches and they received a signal from him to proceed. He noticed the track was properly lined for a movement straight through the west main puzzle switch but when the engine reached the switch it raised up, gave a lurch to the east, proceeded down the west main track and the forward end served between two cars on the adjoining track to the left. Switchman Nellis said that he jumped off immediately after the footboard cleared the puzzle switch.

He estimated the speed to have been between 5 and 3 miles per hour at the time of the accident. Switchman Krezner, who was riding at the rear end of this train, was unaware of the accident until after its occurrence.

Assistant Yardmaster Dunbar stated that engine 85 with 25 cars had just cleared the west main puzzle switch when he saw engine 306 approaching at 86th street. He lined the west main puzzle switch, walked southward, lined the train yard puzzle switch and also the switches up to track 3 in the slab yard, and just as he finished and turned around he saw engine 306 leave the track. It lurched toward the left, the driving wheels under the cab were scraping along the ground, and then the engine and the tender turned over on their right sides, the engine traveling a distance of 20 or 25 feet after the derailment before it turned over. He made no examination of the track after the occurrence of the accident, it was badly torn up and he was of the opinion that a close examination would have revealed nothing. He estimated the speed of the train at the time of the accident to have been about 8 miles per hour.

Traveling Engineer Cuff stated that he rode on engine 306 on the day previous to the accident and also made an inspection of the engine on the afternoon of March 23 just before it was dispatched, and he found nothing that could have caused the derailment. He examined the engine again on the day following the accident but found nothing wrong, and on March 26, without making any repairs, but after disconnecting the main rods and blocking the valves, the engine was hauled in a train up to a speed of 35 miles per hour and Traveling Engineer Cuff stated that he again rode the engine at that time but there was nothing to indicate anything wrong. Traveling Engineer Cuff also stated that he interviewed Engineman Kieser, who was seriously injured in this accident, and the engineman said that he was on the right side of the cab at the time of the accident and that he warned Fireman Reed, who was standing on the deck of the engine, the moment the first driving wheel left the rail. He did not think that the engine would have turned over if they had not struck the cars on the adjoining track. According to Engineman Kieser the engine was in good condition.

Track Supervisor Sanders stated that he made an examination of the switch after the occurrence of the accident and found the turnbuckle stripped on the connecting rod that operates the west frog point and this point had a kink in it about 4 feet from the end. The stripped turnbuckle would have permitted the west frog point to open only part way, and he was of the opinion that the right front driving wheel went on the inside of this point, hit it and made a kink in it, causing the wheel to take the point on

the west main track instead of straight across. He stated that he thought the stripped turnbuckle was due to rusted threads which in turn were caused by ashes and flue dirt dropping from trains as they passed over it, and that the turnbuckle was stripped prior to the occurrence of the accident. The frog has a manganese point and there was no wear on it. This switch had been installed about 1½ years previous to the time of the accident and it had not been necessary to make any repairs during that time other than tightening the bolts and surfacing the track. It is inspected daily and there is some one on duty all the time to look after these switches. He stated that in the vicinity in which this accident occurred it is the busiest place in the yard, and drags were going back and forth over this puzzle switch all day prior to the arrival of engine 306.

#### Conclusions

This accident was caused by a defective turnbuckle on a double-slip switch.

The evidence disclosed that the turnbuckle on the connecting rod of the west frog point was stripped, due to rusty threads, which apparently were caused by ashes and flue dirt dropping down from trains as they passed over it. It appears that the stripped turnbuckle permitted the west frog point to open only part way and the right front driving wheel, instead of going down the throat of the open frog point, rode on the point with the flange on the inside, resulting in the engine being derailed to the left. This track is inspected daily and there is some one on duty at all times to look after the switches. Inspection of the engine disclosed nothing that could have contributed to the occurrence of this accident.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.