

Federal Railroad Administration, Office of Railroad Safety

Accident Investigation Summary Report FE-2022-17

BNSF Railway Company (BNSF) – Track Laborer Fatality
Offerle, Kansas
November 9, 2022

1. EXECUTIVE SUMMARY

On November 9, 2022, at around 11:20 a.m., CST, a BNSF Railway Company (BNSF) employee, who was part of a work crew moving a heavy switch point, was fatally injured when the load fell and struck him.

The crew was using a boom crane-equipped truck to lift a 22-foot-long switch point weighing about 1,000 pounds. As they attempted to place the switch point onto the truck, the lifting strap broke, causing the switch point to fall. The employee, who was holding a tagline to help stabilize the load, was positioned underneath the load's swing path and within the "red zone"¹ of the crane's reach. This position made him vulnerable to being struck by the falling load. The employee had been with BNSF for just 91 days.

The Federal Railroad Administration (FRA) determined that the accident was caused primarily by the failure of the synthetic lifting strap. Additionally, FRA identified procedural issues, including the improper use of the tagline and failure to follow safe operating procedures, as contributing factors.

2. ACCIDENT SEQUENCE OF EVENTS

On November 9, 2022, at about 11:20 a.m., CST, a BNSF employee was fatally injured when a suspended load fell and hit him. The employee was part of a team moving a 22-foot-long switch point, weighing around 1,000 pounds, onto a BNSF truck equipped with a boom crane at Milepost (MP) 324.5 in Offerle, Kansas.

During the operation, the crew was removing an old switch point and trying to place it onto the truck when the lifting strap failed. This caused the switch point to drop and strike the employee on the head and shoulder. The employee was holding a tagline, a rope used to stabilize the load, but was positioned under the load's swing path and within the dangerous "red zone" of the crane's reach.

¹ A "red zone" is an area where there is the potential to be struck by moving equipment, when working with or around equipment.

The employee, who had only been with BNSF for 91 days, was working in daylight with cloudy and cool weather conditions, around 66°F and winds of 25 mph gusting to 36 mph.

3. INVESTIGATION AND ANALYSIS

The lifting strap identification tag indicated that the load capacity of the strap varies significantly based on its configuration: 8,600 pounds when used vertically, 6,900 pounds in a choker configuration, and 17,200 pounds in a vertical basket configuration. The approximate weight of the switch point was 1,000 pounds.

FRA's investigation found that the strap used to lift the load was defective, which caused the accident. FRA also noted procedural issues, including the use of a tagline in a hazardous area where it could create additional risks. Although taglines help guide and stabilize loads, they should not be used if they put workers in a hazardous position. Safer alternatives, like push/pull poles, should be considered.

Interviews with employees revealed that only the foreman and the deceased were directly involved in the lifting operation. The foreman noted that the wind made it difficult to control the load. A BNSF Quality Assurance Manager, who was observing the work from across the highway, saw the tagline operator struggling but did not identify any major safety concerns before the accident.

FRA's investigation showed that the synthetic strap was old and had defects that should have led to its removal from service, including multiple fray spots. The investigation also found that several BNSF safety rules and procedures were not followed, including:

- **Inspecting Equipment (Rule S-1.4.1):** Tools and equipment, including rigging hardware, should be inspected for defects before and during use.
- **Avoiding People (Rule S-17.2.6):** Loads should never be moved over people or equipment, and workers should not be positioned under suspended loads.
- **Safety Practices (Rule S-17.5.1):** Do not walk, stand, or work under a suspended load.

4. CONCLUSION

The accident that occurred on November 9, 2022, was caused by a combination of equipment failure and procedural errors. FRA determined that the primary cause was the failure of the synthetic lifting strap used to move the switch point. The lifting strap, which was old and had visible defects, should have been replaced before use. Additionally, essential safety rules were not followed, including the proper inspection of equipment and ensuring that workers were not positioned in hazardous areas under suspended loads.