

[FE-16-98](#) (document link)

**SUMMARY FOR FE-16-98:**  
**SELECTED AND POSSIBLE CONTRIBUTING FACTORS**

**SELECTED FACTORS**

**Railroad:** Burlington Northern Santa Fe Corporation

**Location:** Lubbock, Texas

**Region:** Region 5

**Month:** June

**Date:** 06/01/98

**Time:** 12:30 a.m., CST

**Data for Fatally Injured Employee(s)**

**Foreman (Job 301)**

24 years old

10 months of service

Last rules training: July 1997

Last safety training: July 1997

Last physical: July 1997

**Data for all Employees (Craft, Positions, Activity)**

**Craft:** Transportation

**Positions:**

**Switch Crew 201**

Engineer

Foreman

Brakeman

**Switch Crew 301**

Engineer

Foreman

Switch Helper

Trainmaster

**Activity:** Switching

## **SUMMARY FOR FE-16-98 CONTINUED**

### **POSSIBLE CONTRIBUTING FACTORS**

#### **EVENT**

The Foreman of Crew 301 was fatally injured when crushed between the locomotive (on which he was riding point) and a railroad hopper car.

#### **PCF No. 1**

The incident occurred because the hopper car was fouling the switching lead track. The 201 crew had not properly secured standing cars on Track 0112 before continuing to pull cars from the lower yard to the upper yard. Consequently, the hopper car rolled southward, fouling the switching lead track where the 301 crew was operating.

**REPORT:** FE-16-98

**RAILROAD:** Burlington Northern Santa Fe Corporation (BNSF)

**LOCATION:** Lubbock, Texas

**DATE & TIME:** June 1, 1998; 12:30 a.m, CST

**PROBABLE CAUSE:** The Foreman was crushed between a locomotive and railroad hopper car that was fouling the switching lead track.

**EMPLOYEE:**

Occupation:	Foreman
Age:	24 Years
Length of Service:	10 Months
Last Rules Training:	July 1997
Last Safety Training:	July 1997
Last Physical:	July 1997

### **CIRCUMSTANCES PRIOR TO THE ACCIDENT**

The incident occurred on the Amarillo Division, Slaton Subdivision, at milepost 674.6, in Lubbock, Texas. The BNSF Lubbock Yard comprised two yards, an upper yard and lower yard. The lower yard was south of the upper yard. The tracks within both of these yards ran geographically north and south.

#### **YLUB201-31 (201)**

Following a statutory off-duty period, a switching crew comprising an Engineer, Foreman, and Brakeman reported for duty at 2:30 p.m. on May 31, 1998 to perform local switching operations within the BNSF Lubbock yard. At approximately 6 p.m., the crew of the 201 kicked two cars independently of each other onto the north end of Track 0112 of the upper yard. There were 12 cars already on Track 0112 before the 201 crew kicked the 13th and 14th cars onto this track. Track 0112 could hold approximately 18 cars. The last car kicked onto this track was Covered Hopper No. BN 463680.

#### **YLUB301-31 (301)**

Following a statutory off-duty period, another switching crew comprising an Engineer, Foreman, and Switch Helper reported for duty at 10:30 p.m. on May 31, 1998 to perform local switching operations within the BNSF Lubbock yard. After getting their paperwork together and having a

job safety briefing, the crew members of 301 walked out of the depot to get on their locomotives which were on Track 0110. Once outside the depot, the crew members noticed a cut of cars coupled to the two locomotives they were assigned to use.

The Engineer of 301 returned to the depot to ask the Trainmaster what they were to do with these cars. He was told to place the cars in an empty track in the upper yard. The crew members decided to shove the cars southward on Track 0110 to the south end of the upper yard. They would then pull the cars northward through the south lead and onto Track 0110 of the upper yard. Afterwards, they planned to cut their locomotives away from the cars and pull out on the north lead of the upper yard. Then they would make a reverse move southward down Track 0111, which was also a clear track, and head down to the lower yard to perform their work. The Switch Helper had the taxi take him to the end of the cut of cars so he could ride the point as they shoved the cars southward down Track 0110. Once that move was completed, the Switch Helper dismounted the point and started walking toward the lower yard. He was going to be picked up by the other crew members once they had placed the cut of cars on Track 0110.

The Foreman and Engineer made the moves they had discussed earlier. Once they pulled the cars down Track 0110 and came to a stop, the Foreman uncoupled the cars from the locomotives and walked over to the Track 0111 switch and aligned it for the move they were about to make. He then walked up to the Track 0110 switch and aligned it to allow the two locomotives to come out onto the north lead of the upper yard. Once the locomotives were on the north lead, the Foreman re-aligned the Track 0110 switch to allow them to move southward on Track 0111. The Foreman stepped up on the southeast corner of the south locomotive, and they began their move southward on Track 0111. The Engineer was at the controls of the north locomotive, which was facing short hood northward.

As the two locomotives of the 301 entered the north end of Track 0111, the 201 switcher was pulling cars from the lower yard onto the upper yard.

The weather was dark, clear, and calm, with a temperature of 72° F.

### **THE ACCIDENT**

The Engineer of the 301 heard the Foreman having a radio conversation with the 201 switcher about their location to prevent conflicting routes between the two switchers. The Engineer stated in a post-accident interview that while the Foreman was talking on the radio to the other switcher, he gave a hand signal with his lantern instructing the [301] Engineer to slow the speed of the locomotives. The [301] Engineer stated that at the same instance he applied the locomotive brakes, he collided with the standing cars on Track 0112 which were fouling Track 0111. The Engineer estimated his speed to be between 7 and 10 mph.

After coming to an abrupt stop, the Engineer stated that he could see a stationary light reflecting off of the hopper car they struck. He dismounted the locomotive and ran back to the impact point where he found the Foreman [301] pinned between the steps of the locomotive and the hopper car.

## **POST-ACCIDENT INVESTIGATION**

In a post-accident interview with the Foreman and Brakeman of 201, both stated that hopper car BN 463680 looked to be clear of the north end of Track 0111 when they kicked it onto Track 0112.

Since the accident, information indicates several past incidents have occurred where cars have rolled out of the north end of Track Nos. 0110, 0111, and 0112. The informants stated that once cars have been spotted in these tracks, any form of vibration or movement on adjacent tracks will start cars rolling northward and onto the north lead track. The informants also advised that several train crews have been disciplined for cars rolling out of these tracks and colliding with their locomotive or other cars.

During a post-accident interview, the Engineer of 301 stated that he recalled the headlight was illuminated on the locomotive unit the Foreman was riding. He stated that after he dismounted his locomotive unit and ran back to check on the Foreman, he returned to his locomotive to call for help. He stated that at that time he extinguished the locomotive headlight because he did not want the Foreman to see the extent of his injuries.

Event recorder tapes were pulled from the locomotives of 301. The tape from the controlling locomotive (ATSF 2338) indicated a speed of 7 mph. The tape from the unit the Foreman was riding (BN 3135) indicated a speed of 8 mph.

FRA post-accident toxicological tests were performed on the Engineer and Brakeman of 301. Tests were also conducted on the remains of the deceased Foreman. All test results were negative.

Damage estimates were provided for the locomotive and hopper car by the BNSF mechanical department. The damage was estimated to be \$20,000 on the locomotive (BN 3135). Damage was estimated to be \$5,000 on the hopper car.

## **APPLICABLE RULES**

### **General Code of Operating Rules No. 1 In effect at 12:01 a.m. Wednesday, April 01, 1998**

- 1.1.2 **Alert and Attentive** - Employees must be careful to prevent injuring themselves or others. They must be alert and attentive when performing their duties and plan their work to avoid injury.
- 1.2.0 **Alert to Train Movement** - Employees must expect the movement of trains, engines, cars, or other moveable equipment at any time, on any track, and in either direction. Employees must not stand on the track in front of an approaching engine, car, or other moving equipment. *Employees must be aware of the location of structures or obstructions where clearances are close.*

7.1 **Switching Safely and Efficiently** - While switching, employees must work safely and efficiently and avoid damage to the contents of cars, equipment, structures, or other property. *Do not leave cars or engines where they will foul equipment on adjacent tracks or cause injury to employees riding on the side of a car or engine.*

7.6 **Securing Cars or Engines** - Do not depend on air brakes to hold a train, engine, or cars in place when left unattended. *The Engineer and Conductor are jointly responsible, through job briefings, to insure equipment left unattended is properly secured and a sufficient number of hand brakes are applied to prevent movement. If handbrakes are not adequate, block the wheels.*

When the engine is coupled to a train or cars standing on a grade, do not release the hand brakes until the air brake system is fully charged.

When cars are moved from any track, apply enough hand brakes to prevent any remaining cars from moving.