



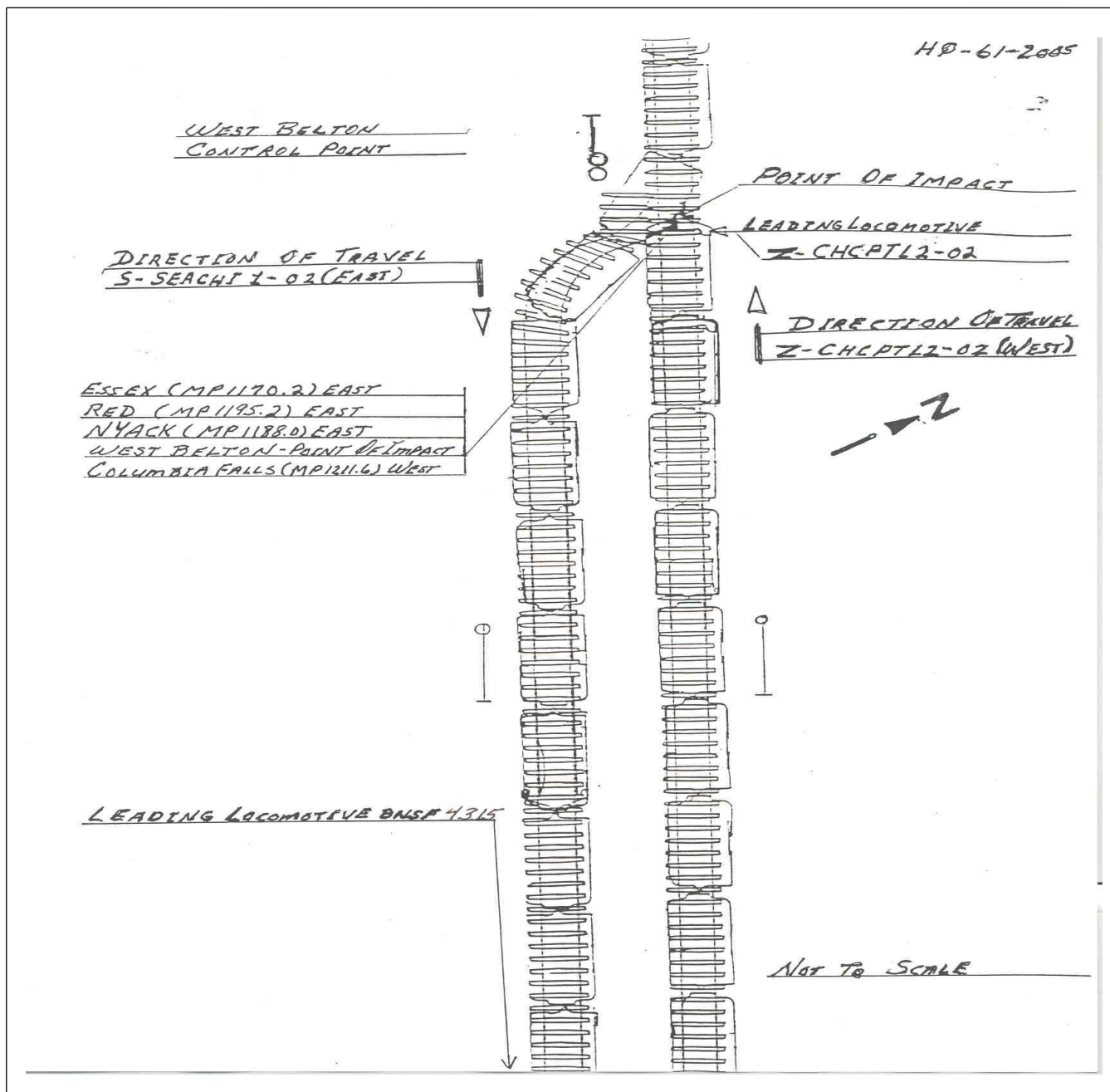
***Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2005-61***

***Burlington Northern Santa Fe (BNSF)
Belton, Montana
August 5, 2005***

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

108. DRAW A SKETCH OF ACCIDENT AREA INCLUDING ALL TRACKS, SIGNALS, SWITCHES, STRUCTURES, OBJECTS, ETC., INVOLVED.

Sketch
HQ-61-
05.jpg



109. SYNOPSIS OF THE ACCIDENT

On August 4, 2005, at 2:44 p.m., Mountain Daylight Time (MDT), a westbound BNSF Railway (BNSF) intermodal train, symbol Z-CHCPTL2-02 collided with the side of a standing eastbound intermodal train symbol, S-SEACHI1-02. The collision occurred at the west Belton control point, milepost 1197.1, on the BNSF Montana Division, Hi Line Subdivision, located near Belton, Montana.

As a result of the collision the leading locomotive of the striking train was damaged and derailed staying upright. The standing train had two railcars damaged but not derailed.

There were no injuries, no release of hazardous materials and no evacuation. The railroad reported a total of \$23,000 in damages (\$22,000 for equipment and \$1,000 for track and structure).

The probable cause of the accident was the crew of train Z-CHCPTL2-02 failed to comply with a block signal indication of an approach (yellow) signal.

At the time of the collision it was daylight and clear. The temperature was 85 degrees.

110. NARRATIVE

The following information was obtained from an investigation that was conducted by the Federal Railroad Administration.

Circumstances Prior to the Accident

BNSF Train Z-CHCPTL2-02

On August 4, 2005, after completing a statutory off-duty period, a train crew consisting of an engineer and a conductor went on duty at their away from home duty station in Havre, Montana, at 6:15 a.m., MDT. The train crew was assigned to operate a westbound intermodal train from Havre to Whitefish, Montana a distance of about 255 miles.

The train consisted of three locomotives, 57 loads, 0 empties, 3,912 trailing tons and was 5,317 feet in length.

The crew boarded the train and BNSF Mechanical personnel made a Class 1 A (extended haul) air brake test prior to the train departing Havre at 8:00 a.m.

The train approached the accident area geographically northwest and timetable west. Timetable directions will be used throughout the report. The engineer was seated at the controls, on the right side (east) of the locomotive. The conductor was seated on the left side (south) of the locomotive.

Approaching the accident site from east at about milepost 1195.95, the track is tangent for about three quarters of a mile, then leads into a right hand 2-degree 27-minute curve about 1,580 feet in length, tangent about 1,300 feet in length to the point of collision and about 800 feet beyond. The grade is 0.45 percent ascending.

In the accident area, trains operate on a single main track under the authority of a Traffic Control System (TCS), controlled by a dispatcher in Fort Worth, Texas. The maximum authorized speed for freight trains is 60 miles per hour (mph).

According to the conductor he observed an approach (yellow) signal indication at the east Belton control point, milepost 1195.0. The conductor verbally communicated the signal indication to the engineer. The engineer did not communicate back.

BNSF Train S-SEACHI1-02

On August 4, 2005, after completing a statutory off duty period, a train crew consisting of a locomotive engineer and a conductor went on duty at Whitefish, at 1:15 p.m., MDT, . The crew was assigned to operate an eastbound intermodal train from Whitefish to Helena, Montana., a distance of about 338 miles.

The train consisted of 71 loads, 0 empties, 5,979 tons and was 6,611 feet in length. The train departed Whitefish, at 1:44 p.m.

The Accident

BNSF Train Z-CHCPTL2-02

According to the printout of the locomotive event recorder the train was being operated at 33 mph approaching the accident site.

According to the engineer and conductor, after traversing through the curve and approaching west Belton control point they observed the absolute signal was red. The crew also observed a train traveling eastward into the Belton siding. The engineer initiated an emergency airbrake application and told the conductor to prepare for a collision.

The train collided with the eastbound (S-SEACHI1-02) train at the 15th car (FEC70642) from the head end at a recorded speed of 3 mph.

According to the engineer, after the train came to a stop, he called the train crew of the S-SEACHI1-02 to make sure no one had been injured. The conductor left the cab to inspect the train and the engineer called the dispatcher and informed him of the collision, via radio communication.

BNSF Train S-SEACHI1-02

According to the conductor, the trip was uneventful as the train approached the accident area.

The train was operating into the siding on an restricting (lunar) block signal at the west Belton control point.

Belton is a designated siding with control points at both ends.

According to the conductor, both he and engineer observed a westbound train approaching and determined a collision was eminent. The engineer initiated an emergency airbrake application, stopping the train before the collision. The westbound train struck them at the 15th car. After the collision they departed the train to inspect the accident.

Analysis and Conclusion

The accident did not meet the Criteria for 49 CFR, Part 219, Subpart C, Post Accident Toxicological Testing.

The leading locomotive of the striking train derailed and remained upright as a result of the collision. The railcars (two) that were struck on the standing train were damaged but not derailed.

According to the conductors interview of the Z-CHCPTL2-02, he observed a yellow approach signal prior to passing by the signal at east Belton control point.

According to the engineers interview of the Z-CHCPTL2-02, he failed to observed a yellow approach signal at east Belton control point.

According to locomotive event recorder of the Z-CHCPTL2-02, the engineer was operating the train at a speed of 33 mph and did not make a reduction in his speed after passing the yellow approach signal. An emergency airbrake application was initiated until about 840 feet from the point of impact. The engineer failed to comply with BNSF GCOR, approach signal (9.1.8) at east Belton. Rule 9.1.8 instructs the crew to be prepared to stop at the next signal, trains exceeding 30 mph immediately reduce to that speed.

According to the engineer and conductor interviews. of the Z-CHCPTL2-02, the crew failed to comply with BNSF GCOR rule 1.47- paragraph C., that states in part;

C. All Crew Members' Responsibilities

1. If proper action is not being taken, crew members must remind engineer of such condition and required action.

2. Crew member in the engine control compartment must be alert for signals. As soon as signals become visible or audible, crew members must communicate clearly to each other the name of signals affecting their train. They must continue to observe signals and announce any change of aspect until the train passes the signal. If the signal is not complied with promptly, crew members must remind the engineer and/or conductor of the rule requirement.

3. When the engineer and/or conductor fail to comply with a signal indication or take proper action to comply with a restriction or rule, crew members must immediately take action to ensure safety, using the emergency brake valve to stop the train, if necessary.

As a result of the side collision at west Belton control point the BNSF conducted a safety blitz that emphasized signal aspects and the meaning of each. During the blitz special emphasizes was placed on the actions to be placed on a yellow approach signal indication.

Probable Cause

The probable cause of the accident was the failure of the train crew of the Z-CHCPTL2-02 to comply with an automatic block or interlocking signal displaying other than a stop indication (cause code H222). The FRA concurs with the findings.