

REPORT: FE 27-97

RAILROAD: Burlington Northern Santa Fe Railroad (BNSF)

LOCATION: Barstow, California

DATE, TIME: Sept. 12, 1997, 11:25 a.m., PST

PROBABLE CAUSE: Failure of the motor vehicle operator to yield the right of way to a moving cut of freight cars descending the hump.

EMPLOYEE: **Craft..... Maintenance of Way**

Activity..... Repair of head-end telemetry and EOT devices, and replacement of malfunctioning radio.

Occupation..... Lineman & Communication Specialist

Age..... 63 years

Length of service..... 20 years & three months

Last Rules Training..... May 26, 1996

Last Safety Training..... May 8, 1997

Last Physical Examination.. Pre-employment

Circumstances Prior to the Accident

On Sept. 12, 1997 at 7 a.m., the Lineman & Communication Specialist (Lineman) reported for duty at the BNSF shop in the classification (hump) yards. The first two hours of his duty were devoted to repairing head-end telemetry and end-of-train devices. At about 9 a.m., the Lineman was dispatched to the classification yard bowl track area to remove and replace a malfunctioning radio on board the Boron Local, BNSF Locomotive No. 2842. The Lineman drove his company-assigned motor vehicle into the bowl track area, located the locomotive, performed the repairs, and was en route back to the communication shop. He exited the bowl track area, but for an undetermined reason, reversed direction and was approaching an access highway-rail grade crossing within the hump area.

The weather at the time of the accident was clear, and the temperature was 100° F.

The Accident

As the motor vehicle proceeded over the crossing, it was struck by a cut of cars descending the hump. The motor vehicle was initially struck on the passenger side by Boxcar No. RBOX 32224, and was then struck two more times by Box Car No. RBOX 41131 and Tank Car No. NATX 37710. The force from the initial impact rolled the motor vehicle over and shoved it into the west side of the No. 1 retarder group. The force from the two additional impacts rammed the motor vehicle completely through the retarders, causing the vehicle to rip apart and ejecting the Lineman from the vehicle, resulting in multiple injuries to the Lineman.

The total force from the multiple impacts completely destroyed the motor vehicle and caused Boxcar No. RBOX 32224 to derail at the east side of the No. 1 retarder group. A team of Trainmen, who were assigned to monitor the speed of cars coming off the hump and were positioned in a motor vehicle about 50 feet from the No. 1 retarder group, witnessed the accident. They immediately contacted the Humpmaster, who in turn notified the Barstow Police Department. The Barstow Police and San Bernardino County Coroner's office responded to the call, and the Lineman was pronounced dead at the scene of the accident.

(Please see the attached two diagrams of the Barstow hump yard facilities to better visualize the accident scene and chain of events that led up to the fatality.)

Post-Accident Investigation

The print-out received from the Humpmaster's computer-assisted control center indicated that Boxcar No. RBOX 32224 had exited from the master retarder at a speed of 13.7 mph. At the time of impact, the car had accelerated to an estimated speed of approximately 15 mph. The increase in speed was attributed to the descending grade approaching the No. 1 retarder group.

The vehicle came to rest about 258 feet east of the initial point of impact. The Lineman was found lying face down on the northwest side of the No. 1 retarder group, about 84 feet from the point of impact. Wreckage and debris from the motor vehicle was found scattered along the entire north side of the retarder group.

Immediately after this accident, on the same day, the Division Superintendent issued Bulletin Notice No. 76 and had a warning sign installed at the north side of the road crossing.

The warning sign was painted with red and black lettering on a white background and read as follows:

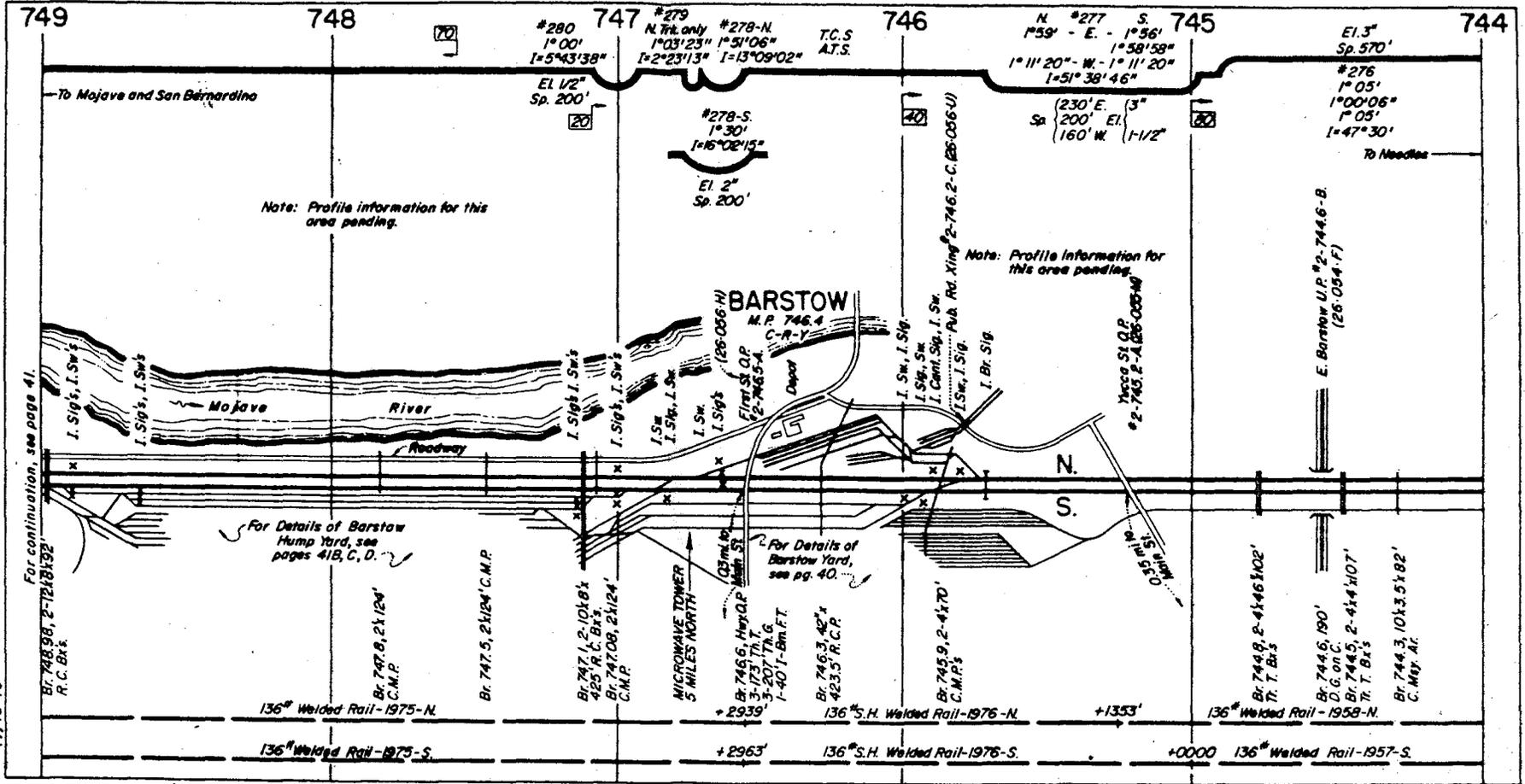
STOP, DO NOT USE THESE CROSSINGS UNTIL AUTHORIZATION HAS BEEN OBTAINED FROM THE HUMP TOWER.

The Superintendent's bulletin notice stated that until further notice, anyone using the road crossings to gain access into the bowl track area must contact the Humpmaster for permission

before crossing the tracks. In addition, the Bulletin Notice specified that the road crossings must not be occupied during humping operations.

The overall length of the No. 1 retarder group was 108 feet. The distance from the initial point of impact to where Boxcar No. RBOX 32224 and the motor vehicle came to rest was about 258 feet.

Blood specimens were harvested from the deceased and mailed to NWT, Inc. for the purpose of toxicological testing under FRA authority. NWT found the vials broken upon arrival; therefore, testing was canceled. Toxicological testing reports were requested from the San Bernardino County Coroner's Office, who had taken additional specimens under its authority. The Coroner's Office released the test results, which were negative for any drugs or alcohol.



749

748

747

746

745

744

To Mojave and San Bernardino

To Needles

Note: Profile information for this area pending.

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BARSTOW

Mojave River

Roadway

For Details of Barstow Hump Yard, see pages 41B, C, D.

For Details of Barstow Yard, see pg. 40.

For continuation, see page 41.

17/12-76

Br. 748.96, 2-12x132' R.C. Bx's

Br. 747.8, 2x124' C.M.P.

Br. 747.5, 2x124' C.M.P.

Br. 747.1, 2-10x8x425' R.C. Bx's
Br. 747.08, 2x124' C.M.P.

MICROWAVE TOWER
5 MILES NORTH

Br. 746.6, Hwy. O.P. 3-173' T.G.
3-207' T.G.
1-40' I-Bm. FT.

Br. 746.3, 42' x 423.5' R.C.P.

Br. 745.9, 2-4x70' C.M.P's

Br. 744.8, 2-4x46' 1x02' T. Bx's

Br. 744.6, 190' D.O.G. on C.

Br. 744.5, 2-4x4' 1x07' T. Bx's

Br. 744.3, 10x3.5x82' C. Mtg. Ar.

136" Welded Rail - 1975-N

136" Welded Rail - 1975-S

+2939'

+2963'

136" S.H. Welded Rail - 1976-N

136" S.H. Welded Rail - 1976-S

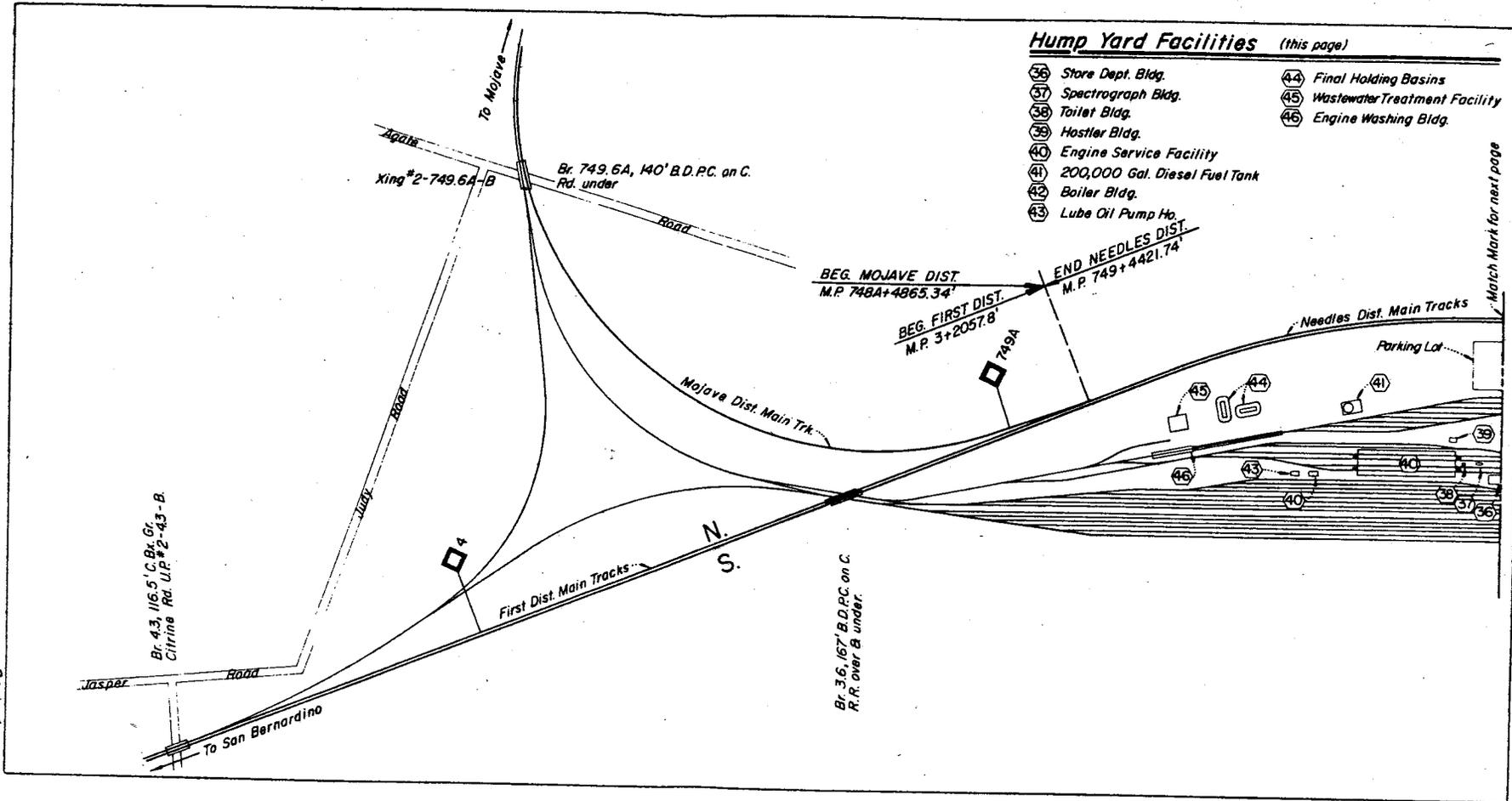
+1353'

136" Welded Rail - 1958-N

+0000 136" Welded Rail - 1957-S

FE 27-97
ATTACHMENT
NO. 18

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FE 27-97
 ATTACHMENT
 00-18