IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - Cause: Human Error - Improper Frequency Selection for Replaced Component

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
73	8/24/1996	BNSF	CTC			None Involved	PSO Receiver	Signal MP 48.6 near Silvana, WA	N

Narrative

Signal employees while performing signal test discovered that with switch at MP 49.8 in the open position the signal governing movement over the switch at MP 48.6 didn't display STOP indication. Further investigation revealed that a PSO transmitter located 12,200' to the south was being coupled around the insulated joints by tunable joint couplers causing the receiver to remain energized. The PSO transmitter is the same frequency as the PSO used for the NWP circuit. The switch at MP 49.8 was at the time spiked and clamped out of service due to the switch frog having been removed on August 28, 1996. On May 8th the signal maintainer had been called for a Red signal at the signal governing movement over this switch and found a broken wire on the PSO transmitter used for the NWP circuit. The frequency of the PSO located south of the signal was changed to 1430 Hz. ROOT CAUSE - The frequency of the PSO located 12,000' to the south had been changed 5 years ago from the original 1430 Hz to a 970 Hz due to an equipment failure. When the original equipment was repaired it was not reinstalled. With the dry conditions the PSO was coupled around the insulated joints causing the receiver to be energized. Under most conditions this was not happening as is demonstrated by the signal trouble in May of this year and the testing that was performed when the 970 Hz PSO was installed for the NWP circuit in March of '96.

No. of Reports Shown in this Listing: **1**

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