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NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: March 25, 1976

Forwarded to:

Honorable Asaph H. Hall Administrator Federal Railroad Administration 400 Seventh Street, S.W. Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

R-76-6 through R-76-9

About 11:00 p.m. on June 6, 1975, three freight trains of the Penn Central Transportation Company were involved in a collision near Leetonia, Ohio. Extra 6330 West collided with the rear of standing Extra 2278 West. Immediately thereafter, Extra 6259 East, which was on an adjacent track, struck the wrecked cars from the other two trains. One employee was killed and seven others were injured. Property damage amounted to \$1.25 million.

According to Operating Rule 99, Extra 2278 West was not required to flag following trains. According to Operating Rule 291, Extra 6330 West was permitted to proceed past signal 653, which displayed a "stop and proceed" aspect because the block was occupied. Under ideal visibility conditions, the maximum unobstructed view westward from signal 653 was about 1,370 feet. Extra 2278 West was stopped just beyond this range. Also, visibility was decreased because of darkness. The protection that Extra 2278 West depended on was (1) The protection afforded by signal 653, and (2) the compliance with the restricted speed rule by the engineer of a following train. In this case, the protection was not adequate to prevent a collision.

The engineer of Extra 6330 West failed to comply with the requirements of Rule 291. Whether he did or did not stop at signal 653 before proceeding by it, he should have been operating his train at restricted speed. He might have been expecting a radio communique from the preceding train or he might have thought his speed was such that he could have stopped short of a hazard. Nevertheless, the system failed. The circumstances of this accident show the need to provide additional protection for trains in occupied blocks when a train stops in a spot where approach visibility is limited or obstructed.

The accident also indicates that radio procedures used by Penn Central crews were not well defined and that enforcement was lax. Basically, the procedures used by Penn Central crews have evolved gradually through trial and error. The crews of Extra 2278 West and Extra 6330 West apparently were dependent on their radios to report unusual circumstances. The engineer of Extra 6330 West had used his radio regularly that evening to report his frequent stops and starts to a following train. Even though the engineer of Extra 2278 West knew his radio would not transmit, his actions after his train stalled indicated that he still considered the radio to be the most expedient means of reporting his disabled locomotive unit, because he used the radio of another train to report his unit's failure.

These actions indicate that the crews were accustomed to radio communications and dependent upon them to varying degrees. This dependence may have detracted from the effectiveness of other safeguards. Also, the crews could not rely dependably on another train's being equipped with radio equipment since trains often were dispatched without radios and there was no policy in effect to make this known to other employees.

This accident illustrates a lack of guidelines to operating personnel from Penn Central management about proper radio procedures for them to follow if a train is stopped in an area of restricted visibility.

Therefore, the National Transportation Safety Board recommends that the Federal Railroad Administration:

- 1. Promulgate regulations to prohibit trains from operating in occupied blocks except through the authority of a train order or by some other procedure with similar safeguards. (Recommendation R-76-6) (Class II, Priority Followup)
- Establish guidelines for and require carriers to establish radio procedures to insure that trains which stop in restricted visibility areas will notify by radio or flag trains to the rear. (Recommendation R-76-7) (Class II, Priority Followup)
- 3. Require that trains be equipped with operable radios and that railroad management provide guidelines for their use in normal service and in emergency situations. (Recommendation R-76-8) (Class II, Priority Followup)
- 4. Continue the investigation of the crashworthiness of locomotive cabs with emphasis on personnel safety and consideration of a readily accessible crash refuge. (Recommendation R-76-9) (Class II, Priority Followup)

TODD, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendations.

By: Webster B. Todd, J

Chairman