

not compatible with the expected efficient operation of trains, and could not be interpreted as applicable without considerable cross-referencing and comparison with other rules.

7. The rules of the IC and IHB were not consistent in structure or meaning. This inconsistency encouraged the prevalent lack of understanding of applicable IC rules by the involved IHB crewmembers.

8. The failure of the IC switchtender to advise the crewmembers of the IC train of a possible conflict in movement with the IHB train played a significant role in the occurrence of the collision. The responsibility for establishing such communications or other applicable procedures was not covered by rule even though means were provided to promote communication.

9. The vandalized telephone at Highlawn resulted in indirect and untimely communications between the IHB crewmembers and the IC switchtender, who was responsible for authorizing IHB movement upon IC trackage. The vandalized telephone had been inoperative for some time prior to the accident, but had not been repaired.

10. The practice of shoving cars over an unlighted pathway when visibility was restricted was not compatible with the provisions of rules that placed the responsibility for avoiding an accident upon the ability to stop short of sighted obstructions.

11. The severity of the accident was influenced by the lack of crash protection provided to the occupants of the IHB locomotive, and the proven tendency of railroad car equipment to climb over the heavy underframes of locomotives upon collision.

### V. PROBABLE CAUSE

The National Transportation Safety Board terminates that the probable cause of this accident was the failure of the Illinois Central

crewmembers to operate IC Train 1218 at a speed so as to be able to avoid the collision.

Additional factors that contributed to the occurrence of the accident were:

- a. The failure of the Illinois Central crewmembers to comply with the rule requiring that a crewman take a conspicuous position on the lead car and display a white light when cars are pushed by an engine.
- b. The failure of the Illinois Central Railroad Company to provide additional protection to accommodate the safe movement of trains on track No. 6 when other track changes initiated a permanent display of "Restricted Proceed" on signal 6-1799 in 1969.
- c. Inadequacies in operating rules, practices, and personnel training.

Contributing to the severity of the accident was the apparent lack of crash protection provided to the occupants of the IHB locomotive.

R-71-39-44

### VI. RECOMMENDATIONS

The National Transportation Safety Board recommends that:

(R-71-39-44)

(R-71-40)

- 1. The Illinois Central Railroad Company take the necessary action to ensure that its employees comply with the company's operating rules.
- 2. The Federal Railroad Administration, in establishing operating rules under the auspices of the Federal Railroad Safety Act of 1970, take the necessary action to ensure that such rules are:
  - a. Objective and understandable.
  - b. Compatible with the environment and expected results.
  - c. Enforceable before an accident occurs as well as after the fact.
  - d. Compact and readily identifiable as to applicability.



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e. Compatible with practices of interchange between railroads.

3. The Indiana Harbor Belt Railroad Company take the necessary action to ensure that its employees are versed thoroughly on the rules of other railroads over which these employees must operate.

4. The Illinois Central Railroad Company develop definite safe procedures for the transfer of cars from the IC-IHB interchange track at Highlawn to IC tracks No. 5 or No. 6.

5. The Illinois Central Railroad Company take the necessary action to ensure that communication procedures or facilities used for the advancement of train opera-

tion are used to the fullest extent practicable, and that such communication facilities are maintained in a dependable, operable condition.

6. The Federal Railroad Administration and the railroad industry continue and expand their cooperative efforts toward the timely improvement of the crashworthiness of railroad equipment, particularly as it is related to the protection of the occupants of locomotive control compartments. Improvement efforts should consider all aspects of locomotive safety as related to the entire environment of railroad operation, and not be confined to the improvement of individual components.

R-71-42

R-71-41

R-71-44

R-71-43

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

/s/ JOHN H. REED  
Chairman

/s/ OSCAR M. LAUREL  
Member

/s/ FRANCIS H. McADAMS  
Member

/s/ LOUIS M. THAYER  
Member

Isabel A. Burgess, Member, was absent, not voting.

November 24, 1971