# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, DC. 

ISSUED: December 18, 1979


At about 9:10 p.m., on October 12, 1979, Amtrak passenger train No. 392, consisting of one locomotive unit and five coaches, approached Harvey, Illinois, at a speed of 65 mph where it was diverted from track No. 4 to track No. 3 and collided with the standing Illinois Central Gulf Railroad Company (ICG) freight train No. 51, consisting of 3 locomotive units, 40 cars, and a caboose. The superstructure of the first locomotive unit of train No. 51 was sheared from its bed when the unit was shoved under the second unit at impact. The locomotive and first car of the passenger train (No. 392) were turned onto their sides. The engineer and front brakeman of train No. 51 were killed; the engineer, fireman, other crewmembers, and 51 passengers on train No. 392 were injured.

There are four main tracks, two commuter tracks, and two secondary tracks in the area of the accident. The secondary tracks provide access to Harvey Yard located adjacent to the east side of the main tracks. The commuter and main tracks are numbered west to east, with Nos. 1 and 2 assigned to commuter operation and Nos. 3, 4, 5, and 6, assigned to main line trains. The operation of trains with the current of traffic on the main tracks is controlled by an automatic block signal system. There are 27 hand-thrown switches located on the main tracks and on tracks leading to the yard to establish the various routes. The switches are aligned by a switchtender on instructions of a train director or yardmaster. The hand-thrown switches are not interlocked with movements on the main track, but when the switches are aligned from one track to another, this is indicated on the signal in advance of the switch.

Trains are permitted to move on the main tracks through the area at a maximum authorized speed of 65 mph if the engineer can see the switch markers and know that the switches are properly aligned. However, the hand-thrown switches on the main tracks can be operated at any time regardless of the distance of a train from the switch. This permits the switches to be operated immediately in front of an approaching train, as in this case, with no warning to the train's engineer.

Train No. 51 was operated south on track No. 3 and was stopped just north of a crossover leading from track No. 3 to track No. 4. The train had been instructed to wait until train No. 392 passed on track No. 4; then No. 51 was to be routed to track No. 4 to proceed south. The switchtender stated that he was instructed by the yardmaster to align the crossover for movement of train No. 51 from track 3 to track 4 after the passage of the passenger train. He said that he saw a commuter train go by and assumed that it was the designated passenger train. He immediately went to the switch on track No. 4 and aligned it for the crossover when train No. 392 was about 600 feet south of the switch and moving at a speed of about 65 mph . The passenger train entered the crossover to track No. 3 and collided with the standing freight train.

At the time of the accident, the switchtender had only 2 months service with the ICG and had worked as a switchtender on only 1 other day about 2 months earlier. He stated that he was not familiar with the location of the switches and tracks nor was he familiar with the operation of trains in the area. The switchtender was not trained sufficiently to be properly qualified to fulfill the position of switchtender at this location.

If the main tracks and the switches in the Harvey vicinity were incorporated into an interlocking system or if the switches were protected by an electrical locking device with appropriate time delay, a switchtender, regardless of his experience, could not operate the switch and establish a collision route as was done in this accident.

Therefore, to provide for adequate procedures for the safe operation of trains through this location, the National Transportation Safety Board recommends that the Illinois Central Gulf Railroad Company:

Provide at the Harvey Yard location an interlocking or other positive means to prevent the inadvertent misalignment of switches in advance of a train operating within the signal block. (Class I, Urgent Action) ( R -79..75)

Until positive safeguards can be provided for the operation of
switches, restrict speeds through the area of the Harvey
crossover so that trains can be stopped short of a switch
which is not properly aligned, but not exceeding 20 mph .
(Class I, Urgent Action) (R-79-76)
Immediately qualify all switchmen/brakemen who function as switchtenders by providing sufficient training in the specific rules that apply to switchtenders, in the physical layout of tracks and switches, and in train operations in the area of their responsibility. (Class I, Urgent Action) (R-79-77)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations.


