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Action at Approach Signal

DURING the convention of the American Association of Railroad Superintendents held in Chicago on June 6, W. J. Patterson, Director of the Bureau of Safety, Interstate Commerce Commission, presented a paper concerning train accidents resulting from improper or unauthorized practices, or inadequate rules. Certain portions of this address having to do with signaling are abstracted as follows:

"On some railroads the manner in which signal indications should be observed and obeyed has not been fully or adequately covered by rules and instructions. For example, when a train has been operated under proceed indications for several successive signals and then encounters a signal displaying an approach indication, at what point should the engineman start to reduce the speed of his train so as to bring it below the maximum authorized speed limit under an approach indication? Should it be at the point where he first can see the signal, and if so, should he be required to reduce to the specified speed limit by the time he reaches the location of the signal displaying the approach indication? Or should he be permitted to operate at maximum authorized speed until he reaches the signal displaying the approach indication, and then take action to reduce to the required speed as soon as possible thereafter? Obviously to hold that the engineman must reduce to the prescribed limit before passing the approach signal means that there would be variable performance in approaching each signal, since some signals are so located that they can be seen perhaps a mile distant in fair weather while others, because of track curvature or permanent obstructions, can be seen only a few hundred feet distant; also, weather conditions as well as sudden changes in local conditions, such as a burst of dense smoke obscuring a signal as a train approaches it, can easily diminish the normal distance a signal can be seen from perhaps a mile to only a few feet.

"It is obvious, therefore, that safe operation cannot be assured when the variable factor of sighting distance of a signal is depended upon as a supplement to the spacing of signals to provide proper braking distances. The Bureau of Safety has investigated several accidents wherein the distances between signals did not provide adequate braking distances for maximum authorized speeds, and in recent years there have been many projects carried through on the railroads of this country where signals have been respaced so as to provide necessary braking distances between signals. Instead of depending upon the preview or sighting distance of a signal to provide proper braking distances, it is the part of wisdom and caution to utilize this sighting distance as an additional factor of safety.

"The signal rules which were recently prescribed by the Commission and which become effective September 1, 1939, provide that signals shall be spaced at least stopping distance apart, or where not so spaced, an equivalent stopping distance shall be provided by two or more signals arranged to display restrictive indications approaching the signal where such indications are required. Where proper signal spacing is not provided, the alternative immediately available is a reduction in the maximum speed authorization."