
Editorial Comment

I.C.C. Signaling Investigation

A SERIES of investigations and hearings, now under way, portends the possibility of a program of signaling construction of greater extent than any previously known in the signal field. This series of events started on May 18, when the Interstate Commerce Commission, on its own motion, instituted an investigation to determine whether necessary, in the public interest, to require any respondent to install block signal system, interlocking, automatic train stop, train control, and/or cab-signal devices, methods and systems intended to promote the safety of railroad operation, upon the whole or any part of its railroad on which any train is operated at a speed of 50 or more miles per hour. The authority of the Commission to require railroads to install signaling is given by the so-called 1937 Signal Inspection Law, officially known as Section 25 of the Interstate Commerce Commission Act as amended.*

In the current chain of happenings, the second event of importance was in Chicago on June 18, when the Interstate Commerce Commission, Commissioner Patterson in charge, held a preliminary hearing on the proposed investigations. In his opening remarks, Commissioner Patterson outlined briefly the actions of the Commission on signaling matters during the last quarter century. He asked for suggestions and co-operation in the proposed investigation of the necessity for signaling on certain lines. C. Hungerford, vice-president, maintenance and operation, Association of American Railroads, stated that representatives of the railroads had held two meetings, on June 7 and June 17, and that the Association was prepared to offer the services of a committee to co-operate with the Commission in developing standards and requirements for inclusion in a general order, if any, which the Commission may issue. After a discussion of the forms on which the railroads are to furnish information on train speeds, mileage and signaling in service, by August 10, Commissioner Patterson announced that a formal hearing has been scheduled in Chicago for September 9-12, inclusive. Further discussion brought out the fact that if the standards and requirements developed at the September hearing, and included in a general order, were not acceptable to any railroad on account of special operating conditions, that carrier would have adequate opportunity to request a special hearing between the time any general order was issued and the date on which that order became

effective. Presumably, an opportunity for a hearing would be given also to any railroad having a section of road on which the volume of traffic would not justify the charges for installing and maintaining the system or a system of signaling as may be in accordance with the standards and requirements to be developed.

Thus the groundwork has been laid for an investigation which may lead to proposals for the installation of signaling on extensive mileages, the totals of which will be known more definitely when the data now being collected are assembled in tables. The railroads have about 164,437 miles of road on which passenger trains are operated, of which about 75,000 miles of road is now protected by systems including track circuits throughout such as 68,220 miles of road with automatic block and some 6,820 miles of road with centralized traffic control. A rough estimate by well informed men is that about 40,000 to 50,000 miles of road are light traffic branch lines on which trains are operated at comparatively low speeds. Deducting from the 164,437 total miles operated, the 40,000 miles for branch lines and the 68,220 miles already equipped with track circuit signaling, this leaves, roughly, 50,000 to 55,000 miles of road, mostly single track, on which the proposed investigation and probable order may be effective.

Extent of Program

Taking, for the purpose of discussion, the lower figure of perhaps 50,000 miles, we may assume that on approximately this mileage the volume of traffic and train speeds may be shown to warrant, from the standpoint of safety, a system of signaling based on track circuits throughout, such as automatic block; centralized traffic control; manual-block remote control, as on the Wabash; or the so-called controlled block which is similar to automatic block with remote control of certain signals, as being installed on the Milwaukee and as proposed on one or two other roads. Another logical assumption is that preference may well be given to those territories on which the need for signaling is more urgent, due to the volume of traffic and train speeds.

Based on these two assumptions, and in consideration of previous records, we may estimate the mileage which logically can be installed annually in compliance with an order which might be issued within the next few months. Back in the 1920 decade when the railroads were making extensive installations of automatic block signaling, the peak for any year was 5,127 miles in 1927, and next was 4,785 miles in 1929, with an annual average of 2,792 miles for the 10 years starting with 1921. Along with the signaling that may be installed in the next few years in compliance with any so-called 50-m.p.h. order, the railroads must also install various other forms of signaling such as numerous interlockings and highway crossing protection at thousands of crossings. The size of the programs, therefore, especially for the next few years, will be limited by conditions beyond control such as the amounts of equipment and materials available, and number of railroad men for engineering, drafting and construction, as well as maintenance. Thus if the proposed program gets off to a start averaging 5,000 miles annually, such results should be considered highly satisfactory. As such, however, this program is the most important single happening in the signaling field for many years.

*The complete text of the Section known as the Signal Inspection Act was published on page 505 of *Railway Signaling* for September, 1937.