

# ICC PROPOSES RS&I CHANGES

Concluding abstracts from Bureau of Safety and Service brief. See March issue, p. 15.

**136.339 Mechanical locking, maintenance requirements.**—Locking and connections shall be maintained so that, when a lever or latch is mechanically locked, the following will be prevented:

(a) *Mechanical machine.*

(1) Latch-operated locking. Raising lever latch block so that bottom thereof is within  $\frac{3}{8}$ " of top of quadrant.

(2) Lever-operated locking. Moving lever latch block more than  $\frac{3}{8}$ " on top of quadrant.

(b) *Electromechanical machine.*

(1) Lever moving in horizontal plane. Moving lever more than *five-sixteenths inch* when in normal position or more than *nine-sixteenths inch* when in reverse position.

(2) Lever moving in arc. Moving lever more than 5°.

(c) *Power machine.*

(1) Latch-operated locking. Raising level latch block so that bottom thereof is within  $\frac{7}{32}$ " of top of quadrant.

(2) Lever moving in horizontal plane. Moving lever more than  $\frac{5}{16}$ " when in normal position or more than  $\frac{1}{16}$ " when in reverse position.

(3) Lever moving in arc. Moving lever more than 5°.

The proposed revision of Section 136.339 has been concurred in by the Railroad Brotherhoods and the Association of American Railroads. The witness for the Bureau of Safety and Service [G. B. Anderson, ICC] testified that this rule applies only to interlocking and that the only revision is contained in part (b) under the heading "Electromechanical machine" where the fractions three-sixteenths and seven-sixteenths have been changed to five-sixteenths and nine-sixteenths inches respectively. These changes were suggested to bring requirements for electromechanical interlocking machines moving in a horizontal plane as required for levers of power machines. There is no reason why these requirements should not be the same. Safety of train operation will not be affected.

**136.402 Signal control, track circuit and control operator.**—Signal governing movement at higher than restricted speed shall be controlled by continuous track circuits. Also, in addition, at controlled point they shall be controlled by control operator, and, at manually operated interlocking, manually in cooperation with control operator. [Proposed revision is as follows:]

**136.402 Signals controlled by track circuits and control operator.**—*The control circuits for home signal aspects with indications more favorable than "proceed at restricted*

*speed" shall be controlled by track circuits extending through entire block. Also in addition, at controlled point they may be controlled by control operator, and, at manually operated interlocking, they shall be controlled manually in cooperation with control operator.*

The witness for the Bureau of Safety and Service [G. B. Anderson, ICC] testified in behalf of the proposed revision of rule 136.402. His testimony was substantially as follows: The requirements of this section apply only to traffic control systems. The proposed changes have been made in keeping with other rules where the phrase "signals governing movements at higher than restricted speed" has been replaced by the phrase "the control circuits for signal aspects with indications more favorable than proceed at restricted speed." The purpose of this change is so that the requirements of this rule cannot be circumvented by imposing speed restrictions by time table or special instructions. This change is solely for clarification and safety of train operation will not be adversely affected by its adoption. The Association of American Railroads concurred in this proposal subject to the suggestion that in the last sentence between the words "locking" and "manually," insert "they shall be controlled". This suggestion was made in the interest of clarity and was concurred in by the Bureau of Safety and Service.

Six witnesses for the Railroad Brotherhoods [Jesse Clark, BRS; E. L. Abbott, SJ; Richard I. Kilroy, assistant to general chairman, assistant division 17, Order of Railroad Telegraphers; Ansel E. Littlejohn, EJ&E; W. D. Best, BRS; Walter P. Dunn, B&M] testified in opposition to this revised rule. A "stronger rule" was desired and a new rule 136.402 supported by the Railroad Brotherhoods was proposed. In substance, testimony in opposition to the proposed rule was as follows: Safety will be neglected if someone other than the control operator is permitted to control home signals. The revised rule permits interlocking operators to clear signals for the territory without the knowledge or cooperation of the control operator.

In rebuttal, proponents' witnesses [G. B. Anderson, ICC J. R. DePriest, SAL] testified that the Brotherhoods' proposed text for rule 136.402 is in part based upon misunderstanding as to the meaning of the word "controlled" which precludes proceed at restricted speed aspect from being controlled by a track circuit. With this understanding, believed universally accepted throughout the industry, the Railway Labor Executives Association's proposal would be impossible of compliance. The rule as proposed by proponents in substance is identical to the present rule except that the language has been changed to avoid possible erroneous interpretations. It is impossible for a traffic control system to display aspects permitting conflicting movements for high speed trains. The control operator's action does not contribute to the safe movement of the trains because the signal system is designed and interlocked in such manner as to prevent conflicting movements in such a way as to cause an accident. The word "home" clarifies the rule. It is not possible to control the "stop" aspect through a track relay or control circuit.

**136.404 Signals at adjacent controlled points.**—Signals at adjacent controlled points shall be so interconnected that aspects to proceed *on tracks signaled for movements at greater than restricted speed* cannot be displayed simultaneously for conflicting movements.

This rule change was supported by the Bureau of Safety and Service and the Association of American Railroads. In substance proponents' [G. B. Anderson, ICC] testimony was as follows: The requirements of Section 136.404 apply only to traffic control systems. The rule as presently worded precludes the entering signals at both ends of a controlled siding from simultaneously displaying

aspects to proceed at restricted speed into the siding. The intent of the present rule was to apply to signals displaying aspects more favorable than proceed at restricted speed. The proposed rule clarifies the intent of Section 136.404 and does not adversely affect the safety of train operation.

Two witnesses for the Railroad Brotherhoods [Warren H. Pelton, MP; Walter P. Dunn, B&M] testified in opposition to this rule change. Their position was that the present rule be retained. In substance, testimony in opposition was as follows: The proposed change is not desirable because the rule is substantially weakened. The present rule contains an absolute ban on signals at adjacent control points giving proceed aspects for two conflicting movements. The proposed rule would permit such movements at restricted speed which may be up to 15 miles per hour. The proposed modification poses an additional needless hazard in railroading.

In rebuttal, testimony of proponents [J. R. DePriest, SAL] was as follows: That conflicting movements are only permitted by rule 136.404 on some yard tracks and sidings. The rule as proposed only has limited applications. Where sidings are not signaled, signal aspects to enter such sidings are always proceed at restricted speed. The proposed rule clearly informs the engineers they may expect conflicting movements.

**136.405 Track signaled for movements in both directions, change of direction of traffic.**—On track signaled for movements in both directions occupancy of the track between opposing signals at adjacent controlled points shall prevent changing the direction of traffic from that which obtained at the time the track became occupied, *except that when a train having left one controlled point reaches a section of track immediately adjacent to the next controlled point at which switching is to be performed, an aspect permitting movement at not exceeding restricted speed may be displayed into the occupied block.*

The proposed revision of this rule was supported by the Bureau of Safety and Service and the Association of American Railroads. In substance the supporting testimony [G. B. Anderson, ICC] was as follows: Section 136.405 applies only to traffic control systems. The purpose of the proposed revision was to provide for the situation where part of a train is left on the main track or in a siding at a control point and the locomotive proceeds to occupy the track between the siding and the adjacent control point. Under the present rule a signal cannot be displayed for the locomotive to return to its train because that would require changing the direction of traffic with the track occupied. To get such locomotives back on to their train, carriers have issued special instructions. The Bureau of Safety and Service received many complaints objecting to this method of operation because enginemen were required to proceed back to their trains past a red or stop signal indication. The rule as proposed is designed to overcome these objections. If Section 136.405 is modified as suggested safety of train operation will not be adversely affected.

Four witnesses [Ansel E. Littlejohn, E] & E: W. D. Best, BRS; Warren H. Pelton, MP; Walter P. Dunn, B&M] for the Railroad Brotherhoods testified in opposition to the proposed revision of Section 136.405. Their position was that the present rule should be retained. In summary their testimony was as follows: The effect of the proposed revision of this rule is to destroy traffic locking in traffic-control territory. Since the necessary movement of a locomotive back to its train can now be authorized without loss of traffic locking, traffic locking protection should not be removed. The present practice of receiving permission to pass a red signal to return to train does not normally present any undue hazards unless conflicting movements are a factor.

The proposed rule creates the hazard of possible train collisions when conflicting movements are permitted.

In rebuttal, proponents' witness [J. R. DePriest, SAL] testified that: The present rule does not permit changing of direction of traffic from that which was obtained at the time the track between opposing signals at adjacent control points became occupied. At certain points switching cannot now be performed by signal indication. The new rule overcomes this deficiency and would increase safety of operation. With proceed at restricted speed aspect being displayed under this rule as proposed, it will be impossible for conflicting home signals to be cleared.

**136.407 Approach or time locking.**—Approach or time locking shall be provided for all controlled signals. [words "*and for all electric locks on hand operated switches*" deleted according to proposed revision.]

All parties to this proceeding concur in the revision of Section 136.407 as further proposed. Testimony [G. B. Anderson, ICC] in support of this revision was substantially as follows: Section 136.407 applies only to traffic control systems. The proposed rule differs from the present rule only by the deletion of the phrase "where required" and "and for all electric locks on hand operated switches." The changes were proposed because when Section 136.410 was revised the requirements that approach or time locking was included for electric locks on hand operated switches. The inclusion of the identical requirement in Section 136.407 is merely repetitious. Safety of train operation will be maintained.

**136.408 Route locking.**—Route locking shall be provided where all switches are power-operated. *Route locking shall be effective when the first pair of wheels of a locomotive or car passes a point not more than 13 ft in advance of the signal governing its movement.*

*Note 1.—Relief from the requirements of this section will be granted upon adequate showing by an individual carrier. Relief heretofore granted to any carrier by order of the Commission shall constitute relief to the same extent from the requirements of this part.*

*Note 2.—Existing installations on each railroad, which do not conform to the requirements of this section shall be brought into conformity within 5 years of the effective date of this rule.*

All parties to this proceeding concurred in the revision of Section 136.408 as further proposed. Testimony [G. B. Anderson, ICC] in support of this revision in summary was as follows: The requirements of Section 136.408 apply only to traffic control systems. The present rule requires route locking where switches are power-operated. In traffic control systems power-operated switches are generally found at control points. Control points are essentially interlockings. The proposed revision was made to be consistent with Section 136.302. Safety of train operation will be maintained if Section 136.408 is modified as proposed.

**136.502 Automatic brake application, initiation by restrictive block conditions stopping distance in advance.**

—An automatic train-stop or train-control system shall operate to initiate an automatic brake application at least stopping distance from the entrance to a block, wherein any condition described in 136.205 obtains, and at each *main track* signal requiring a reduction in speed.

The only proposed change in Section 136.502 is the addition of the words "main track" in the last phrase between the words "each" and "signal." This change was supported by the Bureau of Safety and Service and the Association of American Railroads. In summary, the testimony [G. B. Anderson, ICC] in support of the proposed

rule change was as follows: Section 136.502 applies only to automatic train-stop and train-control systems. The present rule was never construed by the Bureau of Safety and Service to require the initiation of an automatic brake application at signals governing movements on other than main track. The proposed rule simply clarifies the intent of the rule. To further clarify this rule and attain its intended purpose definitions of "main track" and "siding" should be incorporated in the rules as follows:

"Main track—A track other than an auxiliary track, extending through yards and between stations, upon which trains are operated by time table or train order, or both or the use of which is governed by block signals."

"Siding—An auxiliary track for meeting or passing trains." Safety of train operation will be maintained if Section 136.502 and the definitions of "main track" and "siding" as proposed are adopted.

There was no testimony in opposition to the proposed revision of Section 136.502, except a witness [Jesse Clark, BRS] for the Railroad Brotherhoods testified that it was the Railway Labor Executives Association's position that the present rule be retained.

**136.504 Operation interconnected with automatic block-signal systems.**—An automatic train-stop or train-control system shall operate in connection with an automatic block-signal system and shall be so interconnected with the signal system as to perform its intended function in event of failure of the engineman to obey a *main track* signal requiring a reduction in speed.

The proposed revision of this rule was supported by the Bureau of Safety and Service and the Association of American Railroads. In summary proponents' testimony [G. B. Anderson, ICC] was as follows: The only change in Section 136.504 was the insertion of the words "main track" before the word "signal" in the last part of the rule. This change will clarify the intent of the rule and will not adversely affect the safety of train operation.

There was no testimony in opposition to the proposed modification of Section 136.504, except that a representative [Jesse Clark, BRS] of the Railroad Brotherhoods testified that it was the position of the Railway Labor Executives Association that the present rule be retained.

**136.553 Seal, where required.**—Seal shall be maintained on any device other than *brake-pipe cut-out cock* (double-heading cock), by means of which the operation of the pneumatic portion of *automatic train-stop or train-control* apparatus can be cut out.

The proposed modification of Section 136.553 was supported by the Bureau of Safety and Service and the Association of American Railroads. In substance, the testimony [G. B. Anderson, ICC] in support of the proposed modification of Section 136.553 was as follows: This requirement applies to locomotives equipped with automatic train-stop, train-control or cab-signal devices. In the original rules adopted in 1939, there was considerable duplication in the sections Automatic Train Stop, Train Control Systems and Automatic Cab Signal Systems. In 1950, to eliminate this duplication, these sections were combined into one sub-part. As a result the requirements for a seal or lock was inadvertently extended to cab signal systems and thus required the whistle cut out cock to be sealed or locked. Such was never the intent. The proposed revision will not reduce the safety of train operation.

Testimony of two representatives of the Railroad Brotherhoods [Jesse Clark, BRS; Walter P. Dunn, B&M] was in opposition to the proposed revision of Section 136.553. That testimony in summary was as follows: The present rule should be retained. The cab signal whistle increases the efficiency and safety of operation and its absence

would create additional hazards. To remove the requirement for the seal on the whistle would be at the expense of safety because the whistle may be cut out advertently or inadvertently.

In rebuttal, proponents' witness [Paul S. Early, foreman, electrical engineer's office, Pennsylvania] testified as follows: The Pennsylvania Railroad never has provided a seal on the cut out cock of the pneumatic portion of the cab signal whistle and this railroad has secured relief from the Interstate Commerce Commission from the requirements of Section 136.553. The cab signal whistle cut out cock location practically precludes that vibration or inadvertence will cause the whistle to be cut out.

**136.564 Acknowledging time.**—Acknowledging time of intermittent automatic train-stop device shall be not more than *thirty* seconds.

All parties to this proceeding concur in the proposed revision of Section 136.564. In summary, testimony [G. B. Anderson, ICC; Jesse Clark, BRS] in support of the revision of this rule is as follows: Section 136.564 applies only to locomotives equipped with intermittent inductive automatic train-stop devices. The proposed revision differs from the present rule only in that the acknowledging time is increased from not more than 20 seconds to not more than 30 seconds. This increased interval of time is necessary because the relay involved takes longer to operate with higher main reservoir pressure. With increased main reservoir pressure the operating time of this relay may be as long as 25 or 30 seconds. Acknowledging time has no effect whatsoever upon stopping distance and the extended interval of acknowledging time has no effect on safety of train operation.

**136.576 Roadway element.**—Roadway elements, except *track circuits*, including those for test purposes, shall be gaged monthly for height and alignment, and shall be tested at least [word "*once*" deleted according to proposed revision] every six months.

The proposed revision of this rule was supported by the Bureau of Safety and Service and the Association of American Railroads. The testimony [G. B. Anderson, ICC] of proponents was substantially as follows: The requirements of Section 136.576 applies to automatic train-stop, train-control and cab-signal systems. The rule was revised to exempt track circuits from the requirement of testing roadway elements of such systems because it was not intended that the present rule require track circuits to be tested every 6 months. While inductors and their controlling circuits must be frequently checked to minimize failures, it is not necessary to check track circuits as frequently because they operate on the closed circuit or fail safe principle. Section 136.576 as proposed will not reduce safety of train operation.

One witness [Jesse Clark, BRS] for the Railroad Brotherhoods stated that it was the position of the Railway Labor Executives Association that the present rule 136.576 be retained. However no other testimony was presented in opposition to the proposed revision of this rule.

**136.587 Departure test.**—A test of the automatic train-stop, train-control or cab-signal apparatus on each locomotive, except locomotives and multiple-unit cars equipped with mechanical trip stop *only*, shall be made over track elements or test circuits or *with portable test equipment*, either on departure of locomotive from its initial terminal, or if locomotive apparatus is cut out between initial terminal and equipped territory prior to entering equipped territory, to determine if such apparatus is in service and is functioning properly. *If a locomotive makes more than one trip in any 24-hour period only one departure test shall be re-*

quired in such 24-hour period. If departure test is made by an employee other than engineman, the engineman shall be informed of the results of such test and a record kept thereof.

The proposed revision of Section 136.587 was supported by the Bureau of Safety and Service and the Association of American Railroads. In summary proponent's testimony [G. B. Anderson, ICC] was as follows: Section 136.587 applies to locomotives equipped with automatic train-stop, train-control and cab-signal systems. The original rule adopted in 1939 required the departure test to be made either on departure of the locomotive from its initial terminal or before entering equipped territory. The present rule requires a departure test before departure from both the initial terminal and before entering equipped territory, if the device is cut out en route. Diesel locomotives frequently operate for long distances. A locomotive operates as much as 2,000 miles before entering equipped territory after leaving its initial terminal. To keep the equipment cut in under such circumstances is neither practical nor economical. Also the test at the initial terminal serves no useful purpose. The proposed rule would permit a departure test to be made either on departure of the locomotive from its initial terminal or if locomotive apparatus is cut out between the initial terminal and equipped territory, prior to entering the equipped territory. The proposed rule also provides that only one departure test shall be required for a locomotive making more than one trip in any 24-hour period. Because of technological advances, one test in any 24 hours is sufficient to insure the equipment will operate properly. Portable test equipment is also permitted by the proposed rule. Such equipment has been desired by the industry and has been proven reliable and efficient. The revision of Section 136.587 as proposed will not impair safety of train operation.

Three witnesses [Jesse Clark, BRS; Walter P. Dunn, B&M; Robert E. Gardner, electrician, Washington Terminal Co.] for the Railroad Brotherhoods testified in opposition to the proposed revision of Section 136.587. It was their position that the present rule be retained. In summary, testimony in opposition was as follows: Vibration still affects this vital equipment. It is desirable to discover malfunctions of this equipment promptly and it is not desirable to only test the equipment once every 24 hours. Portable equipment is undesirable for departure tests.

In rebuttal, proponents' witnesses [Paul S. Early, PRR; G. B. Anderson, ICC] testified as follows: Records of one large railroad showed one cab-signal failure in 65,560 miles of operation. Improvements have been made in cab-signal equipment which result in greater longevity, durability and efficiency. The rule as proposed would not decrease safety of operation. Portable equipment properly made, maintained and used gives acceptable tests. Carriers have sought relief from the present rule. Protests were filed and hearing held on two such applications.

**136.602 Operation in conjunction with automatic block-signal system.**—Where these devices are in use in automatic block-signal territory they shall be arranged to operate in conjunction with the automatic block-signal system.

Note: Relief from the requirements of this section will be granted upon an adequate showing by an individual carrier. Relief heretofore granted to any carrier by order of the Commission shall constitute relief to the same extent from the requirements of this part.

[Proposal is to delete this rule.]

The proposed deletion of this rule was supported by the Bureau of Safety and Service and the Association of American Railroads. Testimony [G. B. Anderson, ICC] in support of this deletion was substantially as follows: This

Section only relates to dragging equipment and slide detectors and similar protection devices. Deletion of Section 136.602 is proposed because it is no longer necessary or desirable to require these devices be operated in conjunction with the automatic block-signal system. Technological developments have provided other means for informing train crews of dragging equipment. These other means are used for hotbox detectors and are available for use in connection with dragging equipment detectors. Where a railroad desires to utilize such other equipment in lieu of the automatic block-signal system it must secure relief from Section 136.602. Safety of train operation will be increased if Section 136.602 is deleted because train crews can be notified of the dragging equipment before the train reaches the automatic block-signal and where there is more than one car with equipment dragging, the crew can be so notified. The deletion of Section 136.602 does not preclude the railroad from interconnecting its dragging equipment detectors with its automatic block-signal system, if it so desires.

Four witnesses [Jesse Clark, BRS; Warren H. Pelton, MP; Walter P. Dunn, B&M; Kenneth Clark, MILW] for the Railroad Brotherhoods testified in opposition to the deletion of Section 136.602. It was their position that the present rule be retained. Testimony opposing the deletion of this rule was substantially as follows: Dragging equipment detectors should be operated in conjunction with the automatic block-signal system even though other means are also relied upon to notify the crew. Unless dragging equipment and hotbox detectors are interconnected with the signal system, the information may or may not be relayed to the crew. Radio communication is not an adequate substitute for interconnection of these devices with the block-signal system.

In rebuttal, proponent's testimony [H. A. Hudson, assistant to vice-president, signal and electrical, Southern] was as follows: The present rule does not require hotbox detectors to operate in conjunction with the automatic block-signal system. There are hundreds of hotbox detectors in service not arranged to operate in conjunction with an automatic block-signal system. Practical railroad experience shows it is not necessary or practical to arrange hotbox detectors to operate in conjunction with automatic block-signal systems. The present rule discourages carriers from installing dragging equipment detectors. There are several methods which may be used to notify crews of dragging equipment, other than by automatic block-signals. Other means will not only result in prompter notification but also more accurate location of the defects.

**Footnote to all rules:** It was suggested by a witness for the Railway Labor Executives Association that consideration be given in this proceeding to the deletion of the following footnote which now is appended to various Commission rules, standards and instructions relating to signal systems.

"Relief from the requirements of this section will be granted upon an adequate showing by an individual carrier."

In lieu thereof it was further suggested that a single section be inserted at the end of all the rules which would have general application to all the rules. It was suggested the "catch all" provision be in somewhat the following terms:

"Relief from the requirements set forth in these rules, standards and instructions will be granted upon adequate showing by an individual carrier."

This proposal was concurred in by all the parties to this proceeding.

RSC

**FINAL POSITIONS WILL BE  
PUBLISHED NEXT MONTH**