

HEARING TESTIMONY: 2

ICC PROPOSES RS & I CHANGES

The material presented this month is a continuation of the direct testimony made by representatives of the ICC, AAR and RLEA in an ICC hearing on proposed changes in signal Rules, Standards and Instructions.

136.204 Track signaled for movements in both directions, requirements.—On track signaled for movements in both directions, a train shall cause one or more opposing signals immediately ahead of it to display the most restrictive aspect, the indication of which shall be not more favorable than "proceed at restricted speed". Signals shall be so arranged and controlled that if opposing trains can simultaneously pass signals displaying proceed aspects and the next signal in advance of each such signal then displays an aspect requiring a stop, or its most restrictive aspect, the distance between opposing signals displaying such aspects shall be not less than the aggregate of the stopping distances for movements in each direction. Where such opposing signals are spaced stopping distance apart for movements in one direction only, signals arranged to display restrictive aspects shall be provided in approach to at least one of the signals. Where such opposing signals are spaced less than stopping distance apart for movements in one direction, signals arranged to display restrictive aspects shall be provided in approach to both such signals. *Under absolute permissive block signaling when a train passes a head block signal it shall cause the opposing head block signal to display an aspect requiring a stop.*

Abstract of Testimony, W. D. Best, Grand Lodge Representative, Brotherhood of Railroad Signalmen (Formerly Communication and Signal Maintainer, Pennsylvania).

Q. What is the effect of the proposed change in the first sentence of rule 136.204?

A. Two opposing trains can be permitted to enter the same block in opposite directions at restricted speed. The rule now requires that opposing signals display an aspect requiring a stop so that the trains must stop at the entrance to the block.

Q. Has there been a change proposed in the second sentence of the rule?

A. Yes, it is proposed to permit a signal to display only its most restrictive aspect instead of requiring a stop in the conditions set out in the sentence. The rule would permit where trains simultaneously pass proceed signals, the next signals in advance to display their most restrictive aspect. The aggregate stopping distance for moves in each direction is required between signals displaying such aspects. It is not clear from the wording of the rule which signals are referred to, but I assume the rule refers to the signals displaying their most restrictive aspect rather than to those displaying proceed aspects. This change would permit proceed-at-restricted-speed indications for opposing movements where now stop indications are required. The situation the rule concerns two opposing trains passing proceed signals, the next signal each train receives would permit it to proceed at restricted speed. It must be noted that it is not normal to receive such indication after passing a proceed indication, usually the next signal will be approach as its most restrictive. The proceed-at-restricted-speed signals are suddenly encountered without approach signals. By requiring the trains to come to a stop as quickly as possible there is danger that the opposing trains cannot or will not be able to stop short of each other.

Abstract of Testimony, Kenneth Clark, Locomotive Engineer, Chicago, Milwaukee, St. Paul and Pacific.

Q. Does the proposed Rule 136.204 pose any problems in basic operation?

A. There is a further problem which is a practical operational problem. The revised rule would apparently permit a train to pass a red signal provided it was going 15 mph or less. . . .

The problem arises not in applying the brakes which means reducing the air pressure in the air line. The problem arises in releasing the brakes while the train is going

low speed. Let's consider a typical situation: the train comes to an amber, permissive, signal. You will recall that the permissive signal is a signal to reduce speed to 30 mph, prepared to stop at the next signal. Let us assume now that the train has been proceeding at 60 mph. and that the engineer then sees an amber light. He immediately reduces speed to 30 mph. and in order to do so, applies the brakes. So long as the train is proceeding at roughly in excess of 25 or 30 mph., he can release the brake at any time without danger. But, however, the operation of the air brake system is such that it is not safe to release the air brake once the train speed has been reduced below about 25 to 30 mph . . . if the engineer were to release the brakes when the train speed is below 25 or 30 mph., in many instances the brakes would not release at the same time on all of the cars in the train. The result would be that the brakes on some of the cars would release, while on others, let us say, on the car immediately in front, or immediately behind, a given car would not release. The result would be that a boxcar, for example, might give a severe jolt to the car in front of it, or, on the contrary, might be jerked back violently against the car behind it. Naturally, such violent movements are very hard on the freight being carried and can lead to extensive damage and subsequent damage claims to a carrier. In fact, the jolts can be so severe that the couplings will break apart and, of course, this is a very costly accident for the carrier and can lead to serious injury to the train crew.

Q. *In the light of what you have just said, what are the practical problems of the engineer under the proposed rules?*

A. Let us assume now that the train has passed an amber signal which requires it to reduce speed to 30 mph and be prepared to stop at the next signal. Under existing rules if the next signal is red, it is required to come to a complete stop before proceeding. Under the proposed revised rule it need not stop but may proceed past that signal at not in excess of 15 mph, prepared to stop short of any obstruction. Once the train has been slowed to about 30 mph, the engineer will have to make a decision whether to continue to apply the brakes and bring the train to a halt or whether to release the brakes and continue to go at 30 mph. Remember that once the train slows to much below 30 mph, the brakes can continue to be applied but cannot safely be released until the train has been brought to a complete stop. If the engineer elects to keep the brakes on, then, of course, the train will come to a complete stop and the advantage of keeping the train moving that the carriers are seeking will not be gained. If, however, he elects to keep the train moving, there will be very many instances where it will be difficult or impossible to comply with the rule which says that an engineer should not pass the red light at a speed in excess of 15 mph. Remember that the brakes had to be released when the train was going about 30 mph and that, therefore, the engineer is relying upon the time interval of the releasing brakes to slow the train speed to 15 mph. Now this immediately creates a very hazardous situation. The reason for the red light is that there is an obstruction or trouble somewhere in the block which the train is entering. There may be another train somewhere in the block or there may be a broken rail or there may be some other defect. These conditions can exist at the far end of the block, the middle of the block, or they can exist immediately past the signal itself. The result is that the revised rule is creating a situation in which it may be difficult to bring the trains into the block at a speed not in excess of 15 miles an hour; and if the obstruction or the broken rail or the broken rail should occur very shortly past the red signal, there could be an accident.

At present a train may pass a red signal without stopping only where there is a "C" (a grade marker) on the main, on uphill grades where gravity also acts as a brake . . .

136.301 Where signals shall be provided.—Signals shall be provided to govern train movements into and through interlocking limits, except that a signal shall not be required to govern movements over a hand-operated switch into interlocking limits if the switch is provided with an electric lock and a derail at the clearance point, either pipe-connected to the switch or independently locked, electrically.

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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Section of Railroad Safety, Bureau of Safety and Service, Interstate Commerce Commission.

Q. . . . *Does this [136.301] apply only to an interlocking?*

A. It does.

Q. *Mr. Anderson, why has Section 136.301 been revised as set forth in the Notice of Proposed Rule Making?*

A. Since this rule went into effect on October 1, 1952, the Commission in numerous instances has granted relief, in many cases after hearing, from the requirement of installing a signal to govern movements over a hand-operated switch into interlocking limits, upon condition that the switch be provided with an electric lock and a derail at the clearance point, either pipe-connected to the switch or independently locked electrically. Since the Commission has granted such relief, almost without exception, upon adequate showing, it is proposed the rule be revised to provide for this relief, and thus relieving the Commission of the necessity of acting upon applications and in many cases, of holding formal hearing.

It should be noted that relief from installing a signal to govern movements over an interlocked switch has never been granted and the proposed rule provides for such relief at hand-operated switches only. In this connection it should be pointed out that the requirement that the switch be equipped with an electric lock and a derail at the clearance point actually furnishes more protection than is provided by the installation of a signal, for the following reasons: Section 136.314 requires that electric locks installed on hand-operated switches within interlocking limits at manually operated interlocking shall be controlled by operator of the machine and shall be unlocked only after signals governing movements over the switch display aspects indicating stop and that approach or time locking shall be provided. These requirements insure the same degree of protection against unauthorized movements into the interlocking as is provided by a signal, which is surrounded by the protection afforded by mechanical and/or electric locking. Further, the proposed rule gives the additional protection of a derail at the clearance point. Since a derail is not required in connection with interlocked switches, there is nothing physically to prevent a train from fouling the interlocking by moving past a signal displaying a stop aspect. However, under the revised rule, a train would be derailed at the fouling point if it attempted to enter the interlocking before receiving authority by the action of the operator in unlocking the electric lock on the switch and also on the derail if it is independently operated. Only after receiving such an unlock, can the fouling point derail be placed in non-derailing position; permitting a movement into the interlocking.

Q. *Have any further changes been proposed in Section 136.301, which should be considered in this proceeding?*

A. Yes, as a result of informal discussion and because of exceptions taken in one of the verified statements to deletion of the term "interlocking limits", it is now proposed to substitute the words "interlocking limits" for the term

"the interlocking" in the two places where this term is used in the proposed rule as set forth in the Notice of Proposed Rule Making. Section 136.301 will then read as follows:

"136.301 Where signals shall be provided. Signals shall be provided to govern train movements into and through interlocking limits, except that a signal shall not be required to govern movements over a hand-operated switch into interlocking limits if the switch is provided with an electric lock and a derail at the clearance point, either pipe-connected to the switch or independently locked electrically."

The note following this rule, as it appears in the Notice of Proposed Rule Making will be retained.

Abstract of Testimony, E. L. Abbott, Editor and Manager, The Signalman's Journal.

Q. *The proposed revision of Rule 136.301 contains an exception to the requirement of where signals are to be provided at an interlocking. What would be the effect of this change in the rule?*

A. The exception added in the proposed rule would permit entrance to an interlocking over hand-operated switches without a signal indication that a route had been provided into and through the plant. I assume that this change in the rule means that if the hand-thrown switch was normally electrically locked for mainline movement into an interlocking, the rule would require that a derail must be located on the turnout at the clearance point and access to the plant from the turnout side could only be made when the electric lock was released and the derail removed. However, the rule does not clearly state this. Under the plain meaning of the proposed rule, it would not be necessary to provide a signal for access to the interlocking on the alternate route over the hand-operated switch. This route would be unprotected in accordance with the provisions of the proposed rule. Movement into and through the interlocking on diverging tracks at the entrance to an interlocking could be initiated merely by installing an electric lock and one derail on a hand-operated switch. The proposed exceptions to the present rule destroy the protection intended by the present rule.

In addition, under Section 136.314, a carrier may obtain relief from the requirements for the installation of electric locks at hand-operated switch or derail within the interlocking. Relief could be granted to permit the installation of electric locks not controlled by the operator at the interlocking machine. Thus, the operator of the interlocking plant would have no control or knowledge of movements into and through the interlocking. It is not clear that the basic requirement in Rule 136.314 would also apply for the situations covered by Rule 136.301.

Q. *The proposed revision would permit movements into an interlocking over a hand-operated switch equipped with an electric lock and a derail. Is such an exception to the present rule desirable?*

A. No. Movements into an interlocking should not be permitted by means other than signals which indicate conditions affecting the movement of trains. Movements in an interlocking have customarily been made under very specific and restrictive safeguards to insure maximum safety. Any relaxation of these safeguards would reduce safety and cannot be justified. Unrestricted entry into an interlocking plant, which the proposed rule provides, would increase the number of accidents which occur within interlocking plants.

The present rule, by requiring that a signal must be provided to govern all movements into an interlocking, prevents other conflicting movements into and through interlocking limits, once a route has been established within such limits. A permissive signal cannot be given for

a conflicting move in the interlocking plant once a move has been initiated. The proposed rule sets aside this time proven protection provided at an interlocking. . . .

Abstract of Testimony, Ansel E. Littlejohn, Leading Signalman, Elgin, Joliet and Eastern.

Q. *In regard to the proposed revision of Rule 136.301 would the rule have any effect on automatic interlocking?*

A. Yes, at automatic interlocking plants the control of the electric lock on the hand-operated switch would be unlocked automatically. . . . At automatic interlockings, signal insures that a route cannot be changed with a loss of shunt for 5 seconds or less. Thus, a waiting train on an approach section cannot establish a route if there is a loss of shunt by a train for which a route has been established. However, an electric lock does not provide this protection. If there should be a loss of shunt while the electric lock was conditioned for unlocking, the lock would operate once to permit the switch to be opened and a movement to be made.

Q. *What protection is required and provided through signal devices at automatic interlockings?*

A. At an automatic interlocking, signal control circuits insure that the route selected and all conflicting routes are unoccupied and that conflicting signals display stop aspects and that the switches in the route selected are in proper position. In addition, a signal at an interlocking often insures a clear route beyond the interlocking to the next signal in the block signal system.

Q. *Is this same protection provided at a hand-operated switch equipped with an electric lock?*

A. No. The same protection is not provided. With an electric lock, the only protection required to be provided is that signals governing moves over that switch display aspects indicating stop. For this reason, the present rule should not be changed to allow an electric lock to be substituted for a signal at interlockings at hand-operated switches.

136.302 Track circuits and route locking.—Track circuits and route locking shall be provided. *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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Section of Railroad Safety, Bureau of Safety and Service Interstate Commerce Commission.

Q. . . . *Does this rule [136.302] apply only to interlocking?*

A. Yes it does.

Q. *Mr. Anderson, what are the reasons for the proposed revisions of Section 136.302, as set forth in the Notice of Proposed Rule Making?*

A. The proposed revision of this rule was occasioned by an accident which occurred at an interlocking protecting the crossing of two railroads at grade. A contributing cause of the accident was the fact that the track circuit on one road, through which the route locking was effected, extended only to a point 17.6 ft in advance of the signal governing movements over the crossing, whereas the Commission, in its report covering its investigation of the accident

nt, contended that the track circuit should extend to the
nal, as required under the Commission's rules, standards
d instructions governing interlockings. One of the causes,
; given in the report was "an improper installation of inter-
eking track circuits."

he Commission based its ruling in this matter on the
uirements of Section 136.302 that track circuits and
ute locking shall be provided throughout interlocking
mits, and the definition for interlocking limits as the
cks between opposing home signals of an interlocking.
nder this interpretation the insulated joints for track cir-
uits in an interlocking must be placed opposite the signals
d route locking must be effective as soon as the train
sses a signal. Needless to say, such a narrow interpreta-
m had not been placed upon this rule prior to the occur-
nce of this accident, since it was realized that, as a
actical matter, insulated joints are almost never placed
actly opposite a signal. Therefore, it was proposed the
le be revised to permit location of insulated joints no
ore than five feet in advance of a signal. In order to do this
d not conflict with the definition for interlocking limits,
hich would require that the joints be placed opposite the
gnals, this term was replaced in the rule by the words
he interlocking," so that the first sentence of the revised
le as set forth in the Notice of Rule Making reads "Track
rcuits and route locking shall be provided throughout the
terlocking".

nce there was some objection to the replacement of the
rm "interlocking limits" by the words "the interlocking",
was suggested that the words "throughout the inter-
eking" be deleted so that the first sentence of the pro-
posed rule would read:

Track circuits and route locking shall be provided." Inas-
uch as the rule comes under the title "Subpart C, Inter-
eking," there seems to be no good reason why the words
rough the interlocking" cannot be deleted. There is a
ecedent for this wording in Section 136.304, which states
Mechanical locking or the same protection effected by
eans of circuits, shall be provided." Footnote 2 has been
eleted since it is no longer applicable.

l. *What is meant by the term "in advance of a signal"
nd from what point at the signal governing the movement
such 13 ft measured?*

l. In advance of a signal is a term used in defining the
rritory beyond the signal as seen from an approaching
ain.

he 13 ft is measured from the center of the mast on
hich the signal head is mounted.

**136.303 Control circuits for signals, selection through
ircuit controller operated by switch points or by switch
locking mechanism.**—*The control circuit for each aspect
with indication more favorable than "proceed at restricted
peed" of power-operated signal governing movements
ver switches, movable-point frogs and derails shall be
lected through circuit controller operated directly by
witch points or by switch locking mechanism, or through
lay controlled by such circuit controller, for each switch,
ovable-point frog, and derail in the routes governed by
ch signal. Circuits shall be arranged so that such signal
on display an aspect more favorable than "proceed at
stricted speed," only when each switch, movable-point
og, and derail in the route is in proper position.*

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

Abstract of Testimony, G. B. Anderson, Assistant Chief,
ct. of RR Safety, Bureau of Safety & Service, ICC.

Q. *Mr. Anderson, please refer to Section 136.303, entitled
"Control circuits for signals, selection through circuit con-
troller operated by switch points or by switch locking
mechanism." Do the requirements of this section apply only
to interlockings?*

A. No, they apply to Traffic-Control systems also.

Q. *Mr. Anderson, what are the reasons for the proposed
revisions of Section 136.303 as set forth in the Notice of
Proposed Rule Making?*

A. The present rule requires the selection of the control
circuits for certain signals through switch circuit con-
trollers or switch repeating relays. This rule, unfortunately
was so worded as to require such circuit selection only
for power-operated signals or slotted mechanical signals
governing movements at higher than restricted speed, but
it was the intent of the rule to apply to circuits controlling
every aspect, the indication of which is more favorable
than "proceed at restricted speed". Some railroads actually
interpreted the rule so as not to require switch selection
circuits for any signal, no matter what aspects it displayed,
if the speed through the interlocking was restricted by
timetable or special instructions to not exceeding 20 miles
per hour. However, we have always interpreted the rule
to require switch selection circuits for each aspect of a
power-operated signal with an indication more favorable
than "proceed at restricted speed", regardless of whether
or not the speed through the interlocking was restricted
by rule to not exceeding restricted speed. The rule there-
fore was revised primarily to conform to this interpretation.
The proposed rule omits slotted mechanical signals from
the requirements for the reason that such signals have long
been obsolete and it is believed that none is any longer
in service.

It should be noted that while the present rule required
switch circuit selection for facing point switches, movable-
point frogs and derails only, in service at the time the
rule was last revised, the proposed rule requires such selec-
tion for all switches, movable-point frogs and derails, no
matter when installed and accordingly the last sentence of
the present rule has been deleted.

The second sentence of the rule has been revised by sub-
stituting after "aspect" the words "more favorable than
proceed at restricted speed" for the words "to proceed",
in order to agree with the first sentence of the rule which
requires switch selection control of circuits only for those
aspects more favorable than "proceed at restricted speed".
Also, the word "such" has been deleted before the word
"switch" in this sentence.

The footnote to the present rule has been eliminated
since it is no longer applicable and the standard footnote
providing for relief upon an adequate showing and recog-
nizing relief heretofore granted, has been added.

The proposed rule is much more restrictive than the present
rule, and it is believed the requirements of the proposed
section cannot be circumvented as is the case with the
present rule.

Q. *Mr. Anderson, in your opinion will safety of train op-
eration be affected if Section 136.303 is revised, as pro-
posed?*

A. In my opinion, safety of train operation will be in-
creased, since the proposed rule requires switch circuit se-
lection for all switches, movable-point frogs and derails in
the route governed; the present rule requires such selection
for facing point switches, movable-point frogs and derails
only.

Abstract of Testimony, Frank Youngwerth, General Su-
perintendent, Communications & Signals, Erie-Lackawanna.

Q. *Are you familiar with the proposal to amend Signal
Rule 136.303 that has been advanced by the Bureau of
Safety and Service?*

A. Yes, I am.

Q. Have you heard Mr. Anderson's testimony in support of that proposal?

A. Yes, I have.

Q. Does the industry favor the adoption of the rule as proposed?

A. The industry urges the adoption of this proposal for reasons given by the witness for the Bureau of Safety and Service with the addition of clarifying language.

We ask that the period at the end of the rule be omitted and that a comma be substituted for it, and that the following language be added thereafter:

"except that such protection will not be required for existing trailing point switches, movable point frogs, or derails presently not so equipped."

The desirability of this insertion is shown by consideration of the present rule adopted in 1950. The last sentence of the rule makes provision for signal control in new installations, to be selected through all switches, frogs and derails, both facing and trailing. This constituted a clear recognition that such signals installed prior to 1950 without trailing point switch protection were to be left alone. During the period of more than twelve years since the present rule became effective many new installations have been made in conformity with this sentence of the rule. Many of these new installations have replaced older ones. At the present time, therefore, the great majority of interlocking that would be subject to the proposed rule are in strict conformity with its terms. Some of the older installations, however, those in service prior to October 1, 1950, are still being used and the exceptive language we suggest makes it clear that they need not conform as respects the trailing point switches, frogs and derails contained therein.

Q. In your opinion, would safety be impaired if the older switches were exempted from the operation of the rule?

A. In my opinion, safety would not be impaired. Some of these older interlockings have no switch repeater circuit or trailing point switches. However, they do have other means for checking the position of these switches and other means to prevent clearing of a signal if such trailing point switch is not in proper position for train movement. This, in my opinion, is adequate protection, and cost of adding switch repeater circuits for this, one of its least important functions, is not justified.

Since these installations have been in service, in some cases 50 years or more, in an excepted category for more than 12 years, since they have provided excellent safety and since the cost of modernizing them would be substantial with no advantage, we believe the continuation of the status that would be made clear by the language we are proposing is fully warranted. It seems likely that within the reasonably near future many of these interlockings will be modernized and they then will conform in all respects to the proposed rule.

Q. Do you know of any accidents that could have been prevented if the rule requiring trailing point switch repeater circuits on all switches subject to this rule had been in force?

A. No, to my knowledge there has never been an accident because of a train running through a trailing point switch.

Abstract of Testimony, C. D. Buford, Vice-President, Operations & Maintenance Department, Association of American Railroads (Note: The chart is based upon replies to the letter, both submitted by AAR attorneys.)

ESTIMATED COST OF CONFORMITY TO PROPOSED RULE 303—SELECTED ROADS

Road	No. of interlocking switches in violation of proposal—5 or more	Man-hours required to conform all switches (excl. supervision)	Supervisory man-hours required	Wage cost for work involved (excl. fringe benefits)	Cost of fringe benefits	Cost of material required
	(1)	(2)	(3)	(4)	(5)	(6)
Akron, Canton & Youngstown	15	480	200	\$ 1,856	\$ 445	\$ 4,500
Atchison, Topeka & Santa Fe	29	2,900	350	8,700	1,500	5,600
Atlantic Coast Line	7	528	32	1,522	479	2,720
Baltimore & Ohio	27	1,440	72	4,765	1,129	7,320
Boston & Maine	9	1,680	328	14,000	2,660	12,000
Central of Georgia	70	2,217	420	7,040	1,285	6,240
Chicago & North Western	202	4,848	1,616	20,200	6,262	84,800
Chicago, Burlington & Quincy	5	412	32	1,310	276	3,000
Chicago, Milw., St. Paul & Pac.	21	1,500	42	4,350	1,350	7,200
Chicago, Rock Island & Pac.	180	1,428	150	4,000	920	6,400
Erie-Lackawanna	34	3,706	170	10,200	2,040	25,900
Illinois Central	10	400	80	1,301	278	3,600
Missouri-Kansas-Texas	17	204	68	762	163	4,400
New York Central	23	10,800	540	31,200	3,300	11,500
Northern Pacific	9	3,044	304	9,207	1,520	32,700
Southern Pacific	77	1,136	94	3,750	865	14,200
Terminal R.R. Assn. of St. Louis	16	368	32	1,019	195	1,300
Wabash	14	1,600	160	4,730	1,010	7,500
	765	38,691	4,690	\$129,912	\$25,677	\$241,200

Total cost (columns 4-6) = \$396,884

Letter dated Jan. 10, 1963. TO CHIEF OPERATING OFFICERS OF SELECTED MEMBER ROADS: *Re: Signal Rule 303*

You will recall that a recent questionnaire from this office was addressed to Chief Operating Officer of all Member Roads asking information as to the number of interlocking switches that would be in violation if the pending proposal for revision of Signal Rule 136.303 were adopted.

The responses to the questionnaire disclosed the existence of numerous non-conforming locations. This indicates that adoption of the new rule without provision for these potential violations would work a serious hardship on the industry. Accordingly, in order to support the AAR's proposal for such a provision, we are asking all roads reporting five or more such potential violations, of which yours is one, to give us additional information on the cost of compliance.

It is requested, therefore, that you furnish this office the most accurate estimate possible of the cost of putting such switches into conformity on your road, assuming that the work had to be done now. The estimate should include all crafts and departmental forces required to do the work and be broken down as follows:

1. total man hours required to conform all switches (excluding supervision)

(a.) total supervisory man hours required

2. total wage cost for the work involved (excluding fringe benefits)

(a.) cost of fringe benefits

3. cost of materials required

It is recognized that your estimate may not be related directly to each non-conforming switch but may be an average figure. In case of doubt, the more conservative figures should be used.

Yours very truly,
C. D. Buford

Abstract of Testimony, Jesse Clark, President, Brotherhood of Railroad Signalmen.

Editors Note: The following proposed rule was introduced by Mr. Clark. Italics denote changes from the ICC proposal. 136.303 Control Circuits for Signals, Selection Through Circuit Controller Operated by Switch Points or by Switch Locking Mechanism.—The control circuit for each aspect with indication more favorable than "stop" of power operated signal governing movements over switches, movable-point frogs and derails shall be selected through circuit controller operated directly by switch points or by switch locking mechanism, or through relay controlled by such circuit controller, for each switch, movable-point frog, and derail in the routes governed by such signal. Circuits shall be arranged so that such signal can display an aspect more favorable than stop only when each switch, movable-point frog, and derail in the route is in proper position.

Abstract of Testimony, Warren H. Pelton, Locomotive Engineer, Missouri Pacific.

Are you concerned with this rule [136.303] from an operational standpoint?

Under the revised section the train will be permitted to proceed at restricted speed even though a switch, movable-point frog or derail is not in proper position. This rule definitely has an adverse effect upon safety because it imposes an increased burden upon the engineer and fireman to locate these conditions. The signal system itself is supposed to give warning of them. If, for example, a derail fails to come into proper position for the movement, or the movable-point frog fails to line up properly, or if the switch points move, then the signal should remain at stop. Under the revised rules any one of these conditions could exist and it would be necessary to depend upon the vision of the

fireman and the engineer to detect them. . . . trains . . . are operated in all seasons, day and night, and under all conditions of weather. Snow and fog may easily obscure the fact that the derail has not moved back into the proper position, or can obscure any of these other situations which we have just mentioned. We should have a positive warning from the signal system itself of the existence of these conditions.

136.305 Approach or time locking.—Approach or time locking shall be provided in connection with signals displaying aspects with indications more favorable than "proceed at restricted speed."

Abstract of Testimony, G. B. Anderson, Assistant Chief, Section of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Does this section [136.305] apply only to interlocking?

A. Yes it does.

Q. . . . what are the reasons for the proposed revisions of Section 136.305? . . .

A. This proposed revision is suggested for the same reason as Section 136.303, that is, in order to insure that the requirements of the rule cannot be circumvented by imposing a speed restriction through the interlocking by timetable rule or special instructions.

The intent of the present rule was to require approach or time locking for all signal aspects the indications of which were more favorable than "proceed at restricted speed", yet soon after the rule went into effect we found that some railroads were attempting to circumvent the rule by imposing a speed restriction of 20 miles per hour through the interlocking, even though the signals displayed green or proceed aspects. The rule was revised therefore to insure against the possibility of such circumvention.

It should be noted that the revised rule in no way is less restrictive than the present rule. The Commission has never required that approach or time locking be provided for signal aspects governing movements at restricted speed.

Abstract of Testimony, Jesse Clark, President, Brotherhood of Railroad Signalmen.

Editors Note: The following proposed rule was introduced by Mr. Clark. Italics denote changes from the ICC proposal. 136.305 Approach or Time Locking.—Approach or time locking shall be provided in connection with signals displaying aspects with indications more favorable than "stop."

Abstract of Testimony, E. L. Abbott, Editor and Manager, The Signalman's Journal.

Q. Is the proposed revision of . . . Rule 136.305 desirable?

A. . . . the proposed revision does not provide the protection that is necessary at an interlocking. Approach or time locking should be provided for all signal aspects more favorable than stop to insure safety of train operation. Interlocking is provided generally at points of congestion where heavy traffic and conflicting movements require special consideration. In the interest of safety a train proceeding on an initiated route into such an area should be protected by approach or time locking. At a signal not protected by such provisions, an authorized routing for a train could be cancelled after the train had passed a point where an engineman could no longer observe the signal. The train could proceed into the interlocking even though the route had been cancelled and other opposing or conflicting routes had been initiated.

Q. Is it desirable to provide this locking protection for proceed-at-restricted-speed signal aspects?

A. All signals displaying an aspect more favorable than stop should be provided with approach or time locking to insure safety of train operations. All signal aspects more favorable than stop authorize a movement into the inter-

locking. In many instances a proceed-at-restricted-speed aspect is the most favorable aspect that an interlocking signal can display. The proceed-at-restricted-speed aspect is frequently used to authorize interlocking moves. Often this signal aspect is used to govern the proper speed over movable point frogs, turnouts, and crossovers. It is used to govern train moves over any one of several different routes where the signal does not give any definite indication as to the route the train is to take, the signal only defines the speed at which it is safe for the train to proceed. In addition, this aspect is displayed to govern routes leading to non-signaled territory. In all such cases where a proceed-at-restricted-speed aspect is used, it is of the utmost importance to insure that conflicting routes cannot be authorized and that switches, movable point frogs and derails cannot be moved closely in advance of a train. Without such locking protection a route could be taken away from a train or switches moved in advance of a train at any time. The fact that the train is required to be operated at restricted speed is no adequate substitute for this protection. . . . Any aspect to proceed, displayed by a signal at the entrance to an interlocking, is permission to pass that signal and proceed into the interlocking according to the restrictions imposed by the carriers rules. Nevertheless, it is permission to pass. If authority is given to occupy a route where conflicting moves are most likely to occur, I feel that all possible protection should be provided. A "proceed-at-restricted speed" aspect, displayed at the entrance to an interlocking, while telling an engineman to proceed into the interlocking on a predetermined route offers him no assurance that a conflicting route will not be made by a control operator at the last moment before he occupies the track within the interlocking. A signal displaying a "proceed-at-restricted speed" aspect would not be subject to the provisions of this rule. Approach or time locking would be required. Therefore, authority to occupy an interlocking on a proceed at restricted speed indication could be revoked, at any time up to the point where track circuits become effective, and authority granted for a conflicting movement to "proceed."

136.311 Signal control circuits, selection through track relays, and through signal mechanism contacts and time releases at automatic interlocking.—[Proposed addition:]

NOTE.—Relief heretofore granted to any carrier by order of the Commission shall constitute relief to the same extent from the requirements of this part.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Do the requirements of this section [136.311] apply only to interlockings?

A. No, they apply to traffic-control systems also.

Q. Mr. Anderson, what revision was proposed in this rule as set forth in the Notice of Proposed Rule Making?

A. The only revision in this rule as set forth in the Notice of Proposed Rule Making consisted in substituting the words "the interlocking" for the term "interlocking limits" after the word "within" in part (1), and the addition of a footnote to the effect that relief heretofore granted shall remain in effect.

It is now proposed to revert to the wording of the present rule and retain the term "interlocking limits" instead of the words "the interlocking".

It is necessary to add the footnote, because relief from certain requirements of this rule has been granted in some few cases, and without this note such relief would not be valid if the proposed rule were adopted.

136.312 Movable bridges, interlocking of signal appliances with bridge devices.—When movable bridge is

protected by interlocking, the signal appliances shall be interlocked with bridge devices that before a signal governing movements over the bridge can display an aspect to proceed, the bridge must be locked and the track aligned with the bridge locking members within 1" of their proper positions and with the track rail on the movable span within 3/8" of correct surface and alinement with rail seating device on bridge abutment or fixed span.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Do the requirements of this section [136.312] relate only to interlockings?

A. Yes, they do.

Q. What are the reasons for the proposed revisions of this section? . . .

A. In our administration of this rule it has been found that in the more modern drawbridge installations the track is not locked by means of plunger locks or some other type of mechanical lock, such as were found in older drawbridge interlockings. The seating of these locks in such cases insured that the track was alined, however, in modern drawbridges such rail locks are not provided but the alinement of the track is insured and checked by circuit controllers or other types of electric devices. It is contended that these devices are just as reliable, if not more so, than the old mechanical locks to insure correct alinement of the track rails, and in any event these rail locks did not possess sufficient mechanical strength to prevent the bridge from moving, in case the bridge locking device failed. Accordingly, since the present rule requires that the track be alined and locked, in order to conform to modern developments in drawbridge interlocking practice the requirement that the track be locked has been omitted from the revised rule, which requires that the bridge only be locked and the track alined.

Q. Have any further changes been proposed in Section 136.312 which should be considered in this proceeding?

A. Yes, as a result of informal discussion it is now proposed to substitute the term "rail seating device" for the word "rail" in the last sentence of the rule.

136.314 Electric lock for hand-operated switch or rail.—[Proposed revision is as follows:]

Note.—Relief heretofore granted to any carrier by order of the Commission shall constitute relief to the same extent from the requirements of this part.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Do the requirements of this section [136.314] apply only to interlockings?

A. Yes, they do.

Q. Mr. Anderson, what changes are proposed in this rule?

A. The only change in this rule in the Notice of Proposed Rule Making was substitution of the words "within interlocking" for the phrase "within interlocking limits". It is now proposed, however, to revert to the present wording so that there will be no revision in the body of this section.

136.328 Plunger of facing-point lock.—Plunger of facing-point lock shall have at least 8" stroke. When lever is in reverse position plunger shall pass through lock 1/2" or more. [Proposed revision is as follows:]

136.328 Plunger of facing-point lock.—Plunger of lever-operated facing-point lock shall have at least 8" stroke. When lock lever is in unlocked position the end of plunger shall clear the lock rod not more than 1".

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. Does this rule [136.328] apply only to interlocking?

A. Yes, it does.

Q. . . . What are the reasons for the proposed changes of Section 136.328? . . .

A. Section 136.328 is a revision of Section 332 of the original rules, standards and instructions, reading as follows: "Plunger of facing-point lock shall have at least 8-inch stroke and when its lever is in normal position the end of plunger shall clear lock rod 1-inch".

When the rules were last revised the last part of this rule was changed to read:

"When lever is in reverse position plunger shall pass through lock rod one-half inch or more".

Experience has shown that the wording of the original rule was preferable to this revision, and so it was decided to revert to the original rule with minor changes. The original rule required that the end of the plunger should clear the lock rod by exactly one inch, but since it is not practicable to maintain this distance so accurately this requirement has been changed from exactly one inch to not more than one inch. The rule as presently proposed omits all reference to the lever in reverse position, as in the present rule, and like the original rule is concerned only with the lever in normal or unlocked position, which is a more practicable way of stating the requirements.

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 lever 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 $\frac{9}{16}$ " when in reverse position.

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

Abstract of Testimony, G. B. Anderson, Assistant Chief, Section of Railroad Safety, Bureau of Safety and Service Interstate Commerce Commission.

Q. . . . Does this rule [136.339] apply only to interlockings?

A. Yes, it does.

Q. Mr. Anderson, what changes have been proposed in Section 136.339 in the Notice of Proposed Rule Making and what are the reasons for these revisions?

A. While this is quite a lengthy rule, the only revision that has been suggested is in part (1) under the heading Electromechanical Machine, where the fractions three-sixteenths and seven-sixteenths in the present rule have been changed to five-sixteenths and nine-sixteenths inch, respectively.

These changes have been suggested in order to make the requirements for the electric levers of an electromechanical interlocking machine moving in a horizontal plane, the same as those for the levers of a power machine, which operate in the same manner. There appears to be no reason why the requirements for the same type of levers should not be identical, whether they are in an electromechanical machine or a power machine.

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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Section of Railroad Safety, Bureau of Safety and Service, Interstate Commerce Commission.

Q. . . . Do the requirements of this section [136.402] apply only to traffic-control systems?

A. Yes, they do.

Q. What are the reasons for the proposed revisions of Section 136.402? . . .

A. These changes have been proposed in keeping with other rules where the phrase "Signals governing movements at higher than restricted speed" has been replaced with the phrase "The control circuits for signal aspects with indications more favorable than proceed at restricted speed". The reason for this change is the same as previously explained for these other rules, viz., in order that the rule cannot be circumvented by imposing a speed restriction by time table rule or special instructions.

Obviously, this change is simply for clarification. As proposed the rule will state quite plainly, what we have always interpreted it to mean.

As a result of informal conference with the parties of interest in this proceeding, it is proposed to revise this section further by inserting the word "home" before the word signal in the first line, and by substituting the word "may" for the word "shall" in the second sentence.

Abstract of Testimony, Jesse Clark, President, Brotherhood of Railroad Signalmen.

Editors Note: The following proposed rule was introduced by Mr. Clark. Italics denote changes from the ICC proposal. 136.402 Signals controlled by track circuits and control operator.—The control circuits for signal aspects with indications more favorable than "stop" shall be controlled by track circuits extending through entire block. Also, in addition, at controlled point they shall be controlled by control operator, and, at manually operated interlocking, manually in cooperation with control operator.

Abstract of Testimony, Ansel E. Littlejohn, Leading Signalman, Elgin, Joliet and Eastern.

Q. There is a further revision proposed for the second sentence of Rule 136.402. What is the effect of this change?

A. The revision of the second sentence of the rule would permit signals which are now controlled signals to be changed to automatic signals; or allow them to be controlled by any person designated for the job, such as a yardmaster. This change could permit more than one person to have control of a traffic control interlocking. Under the change there could be no control by a control machine of home signals in a traffic-control system. At manually operated interlockings the signals now are controlled by the interlocking operator and the control operator; they both must clear a signal to permit a train to proceed in traffic control territory. The wording of the revised rule would permit the interlocking operator to clear signals for

the territory without the knowledge or cooperation of the control operator. It would permit two persons to have control over a given territory without the knowledge of what the other intended to do.

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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. Mr. Anderson, now please refer to Section 136.404, which is entitled "Signals at adjacent controlled points." Do these requirements apply only to traffic-control systems?

A. Yes, they do.

Q. What are the reasons for the proposed revisions of this section, as set forth in the Notice of Proposed Rule Making?

A. A literal interpretation of this rule, as presently worded, would preclude the entering signals at both ends of a controlled siding from simultaneously displaying aspects to proceed at restricted speed into the siding. Soon after this rule went into effect exception was taken to the rule on the basis that it was intended to apply only to signals governing movements on the main track and into sidings which were signaled, and did not apply to signals which do not display aspects more favorable than "proceed at restricted speed" for movements into a siding, which is not signaled. In other words, according to this interpretation, the entering signals at both controlled ends of a non-signaled siding simultaneously can display aspects to proceed at restricted speed for movements into the siding, without being in violation of Section 136.404. The proposed change was suggested in order to clarify the requirements of 136.404.

It has been pointed out in informal conference, however, that the revised rule, will permit opposing signals simultaneously to display "proceed at restricted speed" aspects for movements on the main track and on signaled sidings as well as on non-signaled sidings. It has been suggested, therefore, in order to prevent such undesired operation that the rule be further revised to read as follows:

"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".

I believe this wording is an improvement over proposed revision since it more accurately states what the rule is intended to convey.

Abstract of Testimony, Warren H. Pelton, Locomotive Engineer, Missouri Pacific.

Q. In your opinion is this further revision desirable [of Rule 136.404]?

A. No. Here is another case where the proposed modification as suggested by the ICC again substantially weakens the present section. Under the present section there is an absolute ban on signals at adjacent controlled points giving proceed aspects to two conflicting movements. Under the revised section, aspects to proceed could be given in this situation providing top speed on the track involved was restricted speed. But, remember that restricted speed means speed up to 15 mph. and 20 mph. in some cases. This means that the section would permit two trains to be headed toward each other, each going as fast as 20 mph. When we take into consideration the number of locations where there are sharp curves and obstructions of all sorts, we are putting an increasingly heavy burden on the fireman and engineer. In many locations the situation now is extremely

hazardous due to the presence of ground crews, sharp curves, obstructions, bad weather, fog, reduced visibility at night, and all the other matters that make railroading very hazardous. Now, on top of all of these other difficulties, we're going to allow trains on conflicting routes to approach each other at speeds up to 15 mph. This proposed modification definitely poses an additional and needless hazard in railroading. . . .

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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Does this rule [136.405] apply only to traffic-control systems?

A. Yes, it does.

Q. . . . what are the reasons for the proposed revisions of Section 136.405? . . .

A. This rule has been revised to provide for the situation where part of a train is left on the main track or in a siding at a controlled point while the engine proceeds to occupy the track between that siding and the adjacent controlled point to perform switching operations. Under the present rule a signal cannot be displayed for the engine to get back to its train because this would require changing the direction of traffic with the track occupied. Therefore, instructions have to be issued to permit the engine to move back to its train under a red or stop signal indication. The Commission has received several complaints from employee organizations who objected to this method of operation, but in each case it has been necessary to inform the complainant that under Section 136.405, it is not permissible to authorize by signal indication, movement of the engine back to its train after performing switching operations. In order to overcome this objectionable feature of the present rule, the proposed revision is offered. At the prehearing conference on November 8, counsel for the Association of American Railroads suggested that in the excepting clause the word "next" be inserted before the word "control" and that this word be changed to "controlled", and also that the words "to be" be inserted between the words "is" and "performed". The last part of the rule would then read as follows:

"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 an opposing movement at not exceeding restricted speed may be displayed into the occupied block".

I believe this suggestion helps to clarify the rule.

Abstract of Testimony, W. D. Best, Grand Lodge Representative, Brotherhood of Railroad Signalmen.

Q. The proposed revision of Rule 136.405 would add an exception to the present rule concerning a change in the direction of traffic. . . . What is your opinion as to the proposed change in the rule to allow opposing movements into an occupied block?

A. In my opinion this exception to the present rule should not be adopted. The revision would in effect destroy traffic locking in traffic-control territory. The only way in which

opposing moves could be permitted would be to remove the traffic locking protection. It must also be noted that under the proposed revision of Rule 136.402 a control point may not be controlled by a control operator. Thus, someone other than the control operator would be able to authorize opposing movements into a block without the knowledge of the control operator. The movement of returning to train after a switching move, has been cited as the reason for this revision of the second sentence of Rule 136.405. However, such moves are now possible without the change in the rule. Return to train signals are now in service at automatic interlocking plants in traffic-control territory for switching moves. . . . Since the necessary movement can now be authorized without the loss of traffic locking, the rule should not be revised in such a manner as to remove traffic locking protection from the traffic control territory.

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.]

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Does this section [136.407] apply only to traffic-control systems?

A. Yes it does.

Q. What changes in Section 136.407 are proposed? . . .

A. The only change in this section is deletion from the present rule of the phrase "and for all electric locks on hand-operated switches".

When Section 136.410 was revised the requirement that approach or time locking be provided for electric locks on hand-operated switches was included in this rule. Accordingly, it would be repetitious to require in Section 136.407 approach or time locking for electric locks on hand-operated switches and therefore this requirement was deleted from the present rule.

Q. Have any further changes been made in this rule as it appeared in the Notice of Proposed Rule Making?

A. Yes, as a result of informal conference among representatives of the Association of American Railroads, the Railway Labor Executives Association and the Bureau of Safety and Service it was decided to delete the words "where required" in the title of the rule. This is merely an editing change to make the title agree with that of Section 136.305, which prescribes approach or time locking for interlockings, and the title of which is simply "Approach or time locking".

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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. Mr. Anderson, at the Pre-hearing conference of this Proceeding held November 8, 1962, the Bureau of Safety and Service proposed that the proceeding be expanded to

include consideration of Section 136.408, entitled "Route Locking." Do the requirements of Section 136.408 apply only to traffic-control systems?

A. Yes they do.

Q. What are the reasons which made revision of Section 136.408 desirable at this time?

A. The present rule requires that route locking shall be provided where switches are power-operated. In traffic-control systems power-operated switches are generally found at controlled points, and controlled points are essentially interlockings. Accordingly to make this section consistent with Section 136.302 which requires route locking at interlocking, it was agreed at the Pre-hearing conference revision of this section should be considered to make it consistent with Section 136.302, as revised.

Q. Do all of the reasons you advanced for modifying Section 136.302 equally apply to Section 136.408 as proposed.

A. Yes they do.

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.

Abstract of Testimony, G. B. Anderson, Assistant Chief, Sect. of RR Safety, Bureau of Safety & Service, ICC.

Q. . . . Does this rule [136.502] apply only to automatic train-stop and train-control systems?

A. Yes it does.

Q. What changes have been proposed in Section 136.502?

. . .

A. The only change in this section is the insertion of the words "main track" before the word "signal" in the last phrase of the rule. The present rule has never been construed by us as requiring the initiation of an automatic brake application at signals governing movements on other than main track such as sidings or yard tracks. This proposed rule would simply clarify its intent.

It has been suggested in verified statement and at informal conference that the term "main track" be defined and accordingly it was proposed that the definition in the Standard Code of Operating Rules of the Association of American Railroads be adopted. This definition reads as follows: "Main Track—A track extending through yards and between stations, upon which trains are operated by timetable or train order, or both, or the use of which is governed by block signals."

This definition, however, conflicts with the intended purpose of revising the rule, since under this definition a siding, which is signaled, is a main track, and the intent of the revision, as above stated, was to exclude such tracks as sidings and yard tracks. In order to overcome this conflict it is now proposed to define "main track" and "siding" as follows:

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

The adoption of these definitions will carry out the intent of the proposed revision of the rule, which was to exclude such auxiliary tracks as sidings and yard tracks from the requirements of the rule.

To be continued in
the September issue.