



U.S. Department
of Transportation
Federal Railroad
Administration

Memorandum

OP-97-14

Date SEP 8 1993

Reply to Attn of

Subject Information: Movement Within Yard Limits

Edward R. English

From: Edward R. English
Director, Office of Safety Enforcement.

To: Regional Directors

The attached letter to the Illinois Central Railroad addresses the issue of how trains and engines are expected to move within yard limits in signalled territory.

This Technical Bulletin amplifies the guidance previously issued from this office in a letter to the General Code of Operating Rules Committee, dated July 23, 1990, which is included and made a part of this Bulletin.

Mr. Tom F. Utroska
General Manager Transportation
Illinois Central Railroad Company
17641 Ashland Avenue
Homewood, Illinois 60430

JUL 21 1993

Dear Mr. Utroska:

Thank you for your February 8 letter to Jim Schultz, requesting an interpretation of Title 49, Code of Federal Regulations (49 CFR), Part 218.35(b)(2). Specifically, you asked for interpretive guidance on how trains are expected to move within yard limits upon encountering a block signal conveying an indication less favorable than one containing green as its aspect, or part of its aspect. I apologize for the delay in responding to your inquiry.

Title 49 CFR 218.35(b)(2), states in part:

"Trains and engines . . . within yard limits must move prepared to stop within one half the range of vision but not exceeding 20 m.p.h. unless the main track is known to be clear by block signal indication."

In the Federal Railroad Administration's (FRA's) letter to the General Code of Operating Rules Committee dated July 23, 1990, we stated that, from the beginning, FRA intended "clear" to mean a block signal indication which permits a train to proceed to the next signal without imposing any specific operational constraints on train movement. FRA's judgement has been that any indication more favorable than "approach" is acceptable in that regard since such indications denote that at least two blocks are clear in advance of movement.

With respect to the action required of a train or engine entering or moving within yard limits that encounters an "approach" indication, FRA's position is that the train or engine should take immediate action to reduce to a speed that will permit stopping within one half the range of vision, not exceeding 20 m.p.h. (under your rule "Restricted Speed"), consistent with good train handling, upon viewing the "approach" indication. This means that, if advance view will permit, or if a preceding signal gives advance information, such as an "advance approach," "approach medium," etc., and consistent with good train handling, the train or engine should be down to "Restricted Speed" before passing the "approach" indication or before entering yard limits, as applicable.

In effect, your present rule deters "previewing" a signal. The intent of your rule is consistent with the signal and train control rules in 49 CFR Part 236 in regard to "previewing" of signals. The rationale behind not allowing the previewing of signals is to preclude railroads from establishing braking distances based upon signal preview. In yard limits, however, even though signals are properly spaced for braking distances, the ability to operate an opposing train or switch engine without dispatcher authority erodes the intended safety of the system, i.e., to be able to stop where a stop is required.

In yard limits it is necessary that all trains, especially opposing movements, are under the same restriction -- able to stop in one-half the range of vision. Therefore, when a train, having passed a "clear" signal, encounters an "approach" signal indication, it is imperative that the engineer act on the preview to reduce to "Restricted Speed" as soon as practical in the remaining portion of the block known to be unoccupied. If the block governed by the "approach" indication provides only marginally acceptable braking distance, and if the inbound train passes the "approach" signal at maximum authorized speed while the opposing movement simultaneously passes the signal governing opposing movements into that block, the opposing movement will move into the braking distance required for the inbound train and a collision might result.

There are a myriad of signal layouts in yard limit territory and strong debates can be made where this logic (i.e., the "preview" of signals) should not be applied. However, much of the rationale for the opposite argument is rooted in the defense of existing signal systems to avoid costly modifications.

In the interest of a uniform and consistent application of the yard limit regulation premised on safety, FRA's current position is more conservative than your present rule. Yard limits, however, require a more constricted strategy due to the real potential for intrusions onto the main track. Our position does allow for railroads to adopt more stringent procedures in yard limits and several railroads have elected to observe such procedures.

Please let me know if we may of further assistance.

Sincerely,
Edward R. English
Director, Office of Safety
Enforcement

JUL 23 1990

Mr. K. L. Miller, Jr.
Chairman
General Code of Operating Rules Committee
Southern Pacific Transportation Company
One Market Plaza
Room 665
San Francisco, California 94105

Dear Mr. Miller:

This will respond to your recent letter requesting clarification of 49 CFR 218.35 (Yard Limits). I appreciate your interest in Federal Railroad Administration's (FRA) application of the regulation.

To put the rule in perspective, let me start by saying that like you, I, too, have concern over growing ambivalence in proper yard limit rule employment. Modifications to basic precepts by some railroads has undermined the rule's original intent. The yard limit rule had it's genesis decades ago when rail carriers recognized a need to safely coordinate train movements on high speed main tracks in territories where potential conflicts existed with yard movements. After a distressingly large increase in human factor accidents in the 1960's - many on main tracks within yard areas, FRA was compelled to initiate rulemaking action to confront the problem.

In your letter you presented three issues for discussion. The first regarded what specific signal indication constitutes a "clear" for purposes of part 218.35(b)(2). You mentioned that "clear" as expressed in General Code Rule 93 may be more restrictive than intended because it correlates "clear" with a green signal aspect. From the beginning, FRA intended "clear" to mean a block signal indication which permits a train to proceed to the next signal without imposing any specific operational constraints on train movement. FRA's judgement has been that any aspect more favorable than an "approach" indication is acceptable in that regard since such indications denote that at least two blocks should be clear in advance of movement.

The second topic you addressed deals with movements against the current of traffic in yard limits and whether obedience with 218.35(b)(3) eliminates the need to comply with 218.35(b)(2). The short answer to your question is that compliance with 218.35(b)(2) is required at all times

within yard limits. A train moving against the current of traffic in yard limits is required to have authorization and protection by train order, yardmaster or other designated official and only under the operating restrictions prescribed in 218.35(b)(2). That authorization to proceed against the current of traffic doesn't preclude a conflicting movement from entering the main track at an intervening switch. It is to protect against this eventuality that compliance with 218.35(b)(2) is required.

The third point you mention appertains to 218.35(b)(2) compliance requirements in CTC territory. It is FRA's judgement that the yard limit rule has no practical application where interlocking and traffic control system rules are in effect, and minimal application where Rule D251 or its derivatives are in effect. More specifically, in response to your point that CTC rules eliminate the potential for opposing movements in yard limits, we have found that is not always the case. For example, we are aware of situations in CTC yard limit territory where switch engines have been authorized onto a main track. Once there, movement in either direction has been noted independent of control operator knowledge. In addition, not all remote control systems in yard limits are designated as CTC - some are called "remote control ABS," "interlocking limits," "APB," etc. For example, there are several locations where railroads have designated miles of remotely controlled yard limit main track as "interlocking limits" to circumvent restrictive labor agreements requiring dispatcher management of CTC territories. By designating such tracks "interlocking limits," a railroad may employ operators to control movements.

As eluded to above, FRA questions why a railroad would chose to execute yard limits in traffic control or interlocking territories. We suspect the motivation may be two-fold: (1) To circumvent requirements under 49 CFR Part 221 (Rear-End Marking Device); or (2) To take advantage of less restrictive labor agreements vis-a-vis "switching limits." It is important that any collective bargaining constraints associated with "switching limits" be kept separate and distinct from "yard limits." Unfortunately, some rail carriers have elected not to make this distinction, retaining yard limits in interlocking or TCS territory. Such equivocal application of the rule results in confusion and undermines the safety intent of the provision. In view of today's technological advancements in radio and data communication, individual railroads may decide that the very concept of "yard limits" is an anachronism. Some have drastically reduced main line yard limit territories in all but a few locations.

In looking over the historical development of the yard limit proviso, it is apparent the language was born not of impetuosity. During the rulemaking proceedings in the mid-1970's, FRA was the recipient of a great deal of public comment from rail labor and management on appropriate rule phraseology and operational rationale. At that time FRA considered arguments similar to the one which you now advance. It was a purifying process which we believe facilitated the structuring of a rule with suitable safeguards, yet accessible enough to efficiently move trains through congested yard environments.

The projected revision to General Code Rule 93 enumerated in your letter recommends a basic response modification to signal display "approach." We do not agree with the change proposed for the following reasons:

- o Modeled after Federal Aviation Administration's "Federal Aviation Regulations," some elected officials envision a need for FRA to follow course by establishing a national code of railroad operating rules. We have steadfastly resisted such suggestions. Instead, we believe the industry is capable of resolving contentious rules dissimilarities internally, without governmental intervention. We strongly encourage railroads to take the initiative and simplify operating methodologies. We know you and the Committee have attempted to simplify the phraseology in the General Code. However, we believe your present proposal to change Rule 93 is a step backward. Introducing additional compliance qualifications for signal indication "approach" unnecessarily compounds the variables subject to human miscalculation.
- o Even if approved as proposed, we question whether the new General Code Rule 93 would be any less restrictive than the one currently published. In fact, adding the "approach" signal factor might make the rule more cumbersome and restrictive. For example, would you consider all possible variations to an "approach" indication subject to constraints in the new rule? (i.e. approach diverging; advance approach; approach restricting; diverging advance approach; diverging approach; approach medium; approach limited; diverging approach limited; diverging approach medium; diverging approach slow; approach restricting; distant signal approach, etc.).

In taking a close look at General Code Rule 93, we note a potential problem in the present wording. Specifically, the narrative includes the proscription "Movements within yard limits must be made at restricted speed, unless the main track is known to be clear by a block signal displaying green as its aspect or part of its aspect." However, if so applied with Rule 236 <semaphore signal> as cited in the Southern Pacific Timetable (green over yellow conveys an approach indication), Rule 93 would authorize a train to proceed in yard limits on an approach indication as if the block was clear. If not already accomplished, we suggest you take necessary action to address this apparent fault in the rule.

I hope this information helps you and the Committee understand FRA's rationale for administering part 218.35 as we do. Your understanding and support are important to us in FRA, and we appreciate your continued interaction in rail safety dialogue.

Please feel free to contact me if further questions arise.

Sincerely,

Original Signed By
J. W. Walsh

J. W. Walsh
Associate Administrator
for Safety