



Brotherhood of Locomotive Engineers and Trainmen

A Division of the Rail Conference — International Brotherhood of Teamsters

NATIONAL LEGISLATIVE OFFICE

25 Louisiana Avenue, NW, Room A-704 • Washington, DC 20001
Phone: (202) 624-8776 • Fax: (202) 624-3086 • tolman@ble-t.org

JOHN P. TOLMAN

Vice President and

National Legislative Representative

May 17, 2007

Docket Clerk
DOT Central Docket Management Facility
Room PL-401
400 7th Street, SW (Plaza Level)
Washington, DC 20590-0001

Re: Docket No. FRA-2007-27623

Dear Docket Clerk:

On March 28, 2007, the Federal Railroad Administration (“FRA”) published a Notice of Informal Safety Inquiry (“Notice”), announcing the scheduling of a Technical Conference to permit the exchange of information, and to discuss safety considerations and concerns, regarding various systems being developed and installed outside of the scope of a conventional signal or train control system. 72 FR 14641; FRA-2007-27623-1 at p. 1. Specifically, FRA identified power-operated or power-assisted switches, special track condition detection devices, and other train control-like systems as the primary foci of the conference. 72 FR 14642; FRA-2007-27623-1 at p. 2.

The Technical Conference was held on April 19, 2007, in Washington, DC. Formal presentations were made by the Brotherhood of Railroad Signalmen (“BRS”), the United Transportation Union (“UTU”), the Brotherhood of Locomotive Engineers and Trainmen, a Division of the Rail Conference of the International Brotherhood of Teamsters (“BLET”), and Global Rail Systems, Inc. (“GRS”). Additionally, a transcript of the Technical Conference proceedings was made for inclusion in the docket.

These post-conference comments are submitted by the BLET, which is the duly designated and recognized collective bargaining representative for the craft or class of Locomotive Engineer employed on all Class I railroads. BLET also represents operating and other employees on numerous Class II and Class III railroads. Consequently, the subject matter of this docket is of significant importance to our members. Accordingly, we wish at the outset to incorporate by reference herein the preliminary comments made during our presentation at the conference, and

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to reiterate our concurrence with and endorsement of the preliminary comments made by BRS and UTU at the conference.

We also wish to applaud FRA for convening the Technical Conference and express our appreciation for the opportunity to participate. We were most impressed with the level of detail and the frank approach of GRS in its presentation and during the discussion. Further, and notwithstanding the fact that we have significant disagreement with many of their statements and positions, we appreciated the Union Pacific Railroad's extensive participation in the conference. Unfortunately, we were just as disappointed — although not at all surprised — that other Class I railroads showed up with a collective case of severe laryngitis, as if ignoring the problem FRA has identified will make it go away.

Like many sectors of the economy, the railroad industry has entered an era in which technology can provide dramatic change in a relatively short period of time. Even the most mobile and forward-looking institution can find it difficult at times to keep pace with rapid technological change. Through its Railroad Safety Advisory Committee ("RSAC") process, FRA cleared one giant technological hurdle when it developed and promulgated Subpart H of 49 CFR Part 236, which governs standards for processor-based signal and train control systems. Indeed, Subpart H has already proven its value as development and early-stage implementation of positive train control ("PTC") systems have escalated in recent years.

However, as FRA acknowledges in its Notice, there are numerous technologies, components, devices, and systems that fall within neither the conventional signal and train control rules set forth in Part 236, Subparts A–G, nor the parameters established by Subpart H. Many of these technologies, components, devices, and systems are of a safety-critical nature, and some — such as switch point detectors with color light indicators — even mimic currently-regulated signal technologies in appearance. Yet, they are not subject to any design, installation, testing, maintenance, or repair standards promulgated by FRA. Further complicating matters is the potential that these technologies and devices could combine or evolve into PTC system components.

At the Technical Conference, GRS stated its belief that the scope of Subpart H should encompass all new technologies, components, devices, and systems that do not fall within the scopes of Subparts A–G. We wholeheartedly concur with this view for two reasons. First, it will eliminate the current competitive disadvantage saddling suppliers who design, develop and test their products in accordance with the strict regimens prescribed in Subpart H, whether or not a particular product currently is subject to Subpart H. This competitive disadvantage only serves to diminish safety. And, second, it will eliminate the present incentive to develop technologies, components, devices, and systems that fall just short of Subpart H coverage so as to avoid regulatory oversight.

As several participants stated at the Technical Conference, FRA's consideration of these technologies, components, devices, and systems should be guided by their actual and potential functionality, rather than whether they meet a series of mechanistically applied benchmarks. For example, the consensus understanding of a PTC system is one that (1) enforces track authority granted by a train dispatcher, (2) enforces civil speed restrictions, and (3) protects roadway workers from an incursion into their working area.

It would be senseless — if not dangerous — to conclude from this understanding that a system designed to meet only two of the three standards, since it is not within the definition of PTC, is exempt from the requirements of Subpart H. While this may seem to be an extreme example, it is the logical extension of the current situation with regard to switch position detectors currently in use. Any such detectors on lines that will later become PTC-equipped are destined to become a vital and integral part of the PTC system and, thus, subject to Subpart H.

It is clear that PTC development and implementation will continue to be incremental for some time to come. This is true both with respect to elements of PTC systems and geographical locations where the technology will be deployed. It is equally likely that the rate of PTC implementation on some lines will be dependent upon rates of growth in traffic volumes. Clearly, implementation will not occur along a straight line.

In our view, the current framework, which permits development of all variety of technologies, components, devices, and systems that fall a hair or two short of landing within the scope of Subpart H, is shortsighted. It encourages railroads and suppliers to develop technologies, components, devices, and systems that purport to replicate at least some of the functions of a regulated technology, component, device, or system, without having to comply with any federal design, installation, testing, repair, or maintenance standards.¹ Over time, the uniformity and consistency that is the hallmark of Part 236 will be eroded to a point where it is unrecognizable.

Furthermore, it is entirely conceivable that PTC will evolve on some railroads or on some lines in a way that ties together a number of threads comprised of these currently unregulated technologies, components, devices, and systems. At that point, FRA will face two options, neither of which is ideal:

- order risk analyses of all unregulated technologies, components, devices, and systems being carried forward at the same time, to ensure they are Subpart H compliant; or

¹ For example, two Class I railroads recently filed petitions for waiver from compliance with FRA Part 232 brake test/inspection requirements based, in whole or in part, upon measurements taken by and data collected from unregulated wayside monitoring devices that originally were installed for other purposes. *See* FRA-2006-24812; FRA-2006-25564.

- grant Subpart H waivers for all unregulated technologies, components, devices, and systems carried forward.

The former option doubtless would provoke an outcry from the industry, which would have to bear the costs of these deferred risk analyses over a significantly-compressed period of time. The latter choice would seriously undermine safety, and completely defeat the purpose of Subpart H, by permitting literally a hodge-podge of systems and subsystems that are not subject to oversight. Adopting the position espoused by GRS at the Technical Conference would provide all the benefits of the second option, without the compressed cost generated by the first option. In addition, Subpart H qualification of these technologies, components, devices, and systems — when coupled with the recordkeeping requirements of Section 236.917 — would facilitate a more rapid inclusion of them in PTC, or other processor-based signal and train control systems, in the future than the current framework provides.

We continue to be sensitive to the position of those who argue that regulations should not be crafted in a way that stunts innovation or growth. Indeed, to the extent that such innovation enhances the safety of our members, we support it fully, as we traditionally have. However, it is Subpart H that has set the benchmark for safety of new and future systems, and we firmly believe that skirting or sharpshooting the regulation in order to escape oversight creates unacceptable risk.

We would respectfully suggest that the era of unregulated/non-conventional technologies, components, devices, and systems should be short-lived. In support of that proposition, one need look no further than the GRS statement at the Technical Conference that, even under the strict requirements of Subparts A–G, some 18½% of signal failures reported to FRA were caused by poor design. In our view, the question is not what to regulate, but rather what principles must underlie the regulation in order to assure no diminution of safety.

Within this context, then, we will turn to the three subject areas identified in FRA’s Notice. In each area, specific standards should be accompanied by general requirements pertaining to design, installation, maintenance, inspection, testing,² and repair, along with associated recordkeeping. Also, in all cases, there should be uniformity and consistency to the maximum extent practicable.

² To be certain, new testing regimes and schedules must be developed that will address operational characteristics peculiar to solid state electronics and microprocessors. For example, a well-known problem with computer chips is the tendency that they can become polluted over time by the growth of silicon-based “stubble,” a phenomenon that may develop to the point where proper operation of the chip is at risk. See e.g., http://www.usatoday.com/tech/news/2004-02-24-nano-stubble_x.htm. The Subpart H model permits addressing unique issues such as these in the applicable Product Safety Plan.

Regarding power-operated or power-assisted switches, we believe there are several basic standards that cannot be compromised. These include: (1) the same level of mechanical and/or electrical locking as currently-regulated switches; (2) a vital, failsafe, closed-circuit design that ensures secure communications in the control circuitry and loss of shunt protection when appropriate; (3) a prohibition against using yard-type switches lacking traditional switch-and-lock movement for main track operations; and (4) where applicable, the establishment of maximum speeds consistent with the intended use of the particular device.

The second type of device identified by FRA is one that detects a special track condition, many of which have been in use for decades. These include wash-out detectors, which detect erosion or other significant disturbance of the track bed structure, rock slide detectors, and various track integrity detectors. Those used in signaled territory may be part of the track circuitry, and others use varying methods of providing notification of a possible hazardous condition (e.g., radio broadcast messaging, wayside indicator lights, indication/warning communicated to central dispatching locations, etc.). We believe this category of device should be required to feature the same level of sophistication as power-operated or power-assisted switches, especially a requirement that the design be based on vital, failsafe, and closed-circuit principles.

Lastly, we share FRA's concern with regard to other train control-like systems. Some systems, including remote control locomotive (RCL) systems currently in use in yard switching operations, are regulated to some degree, although not nearly as much as we prefer. We believe FRA will need to revisit its previous decision to not regulate RCL as the technology continues to evolve. For example, current development of next-generation RCL includes automatic and dynamic braking capabilities that the present generation lacks, and specifically is designed for main track movements. The challenges posed by implementation of next-generation RCL cannot be adequately addressed by the current mix of regulation and non-enforceable "recommended guidelines."

Ancillary to RCL are the technologies and devices intended to provide a degree of protection for RCL crews. As FRA notes, in several areas devices have been or are being installed at the extremities of these "RCL zones" to provide positive protection against unintended encroachment of train movements. 72 FR 14642. Given the degree of reliance crews place on these technologies and devices, we firmly believe that a failsafe design must be mandated.

All of these technologies, components, devices, and systems are either intended or appear to provide the same functionality and level of safety as their currently-regulated counterparts. It is evident to us that allowing the proliferation of an ever-expanding range of technologies, components, devices, and systems without appropriate regulatory oversight will significantly diminish safety. Without such oversight, it will be impossible to predetermine the safety implications of their use, or what operational limitations should be imposed; lack of oversight will,

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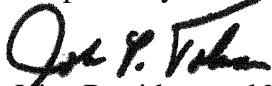
therefore, lead to “trial and error” — literally — and expose railroad workers and communities to unnecessary risk.

We also believe — as GRS does — that Subpart H should encompass all technologies, components, devices, and systems that are not governed by Subparts A–G, but perform similar functions. While we can understand an argument for a configuration threshold as a trigger for regulatory oversight, that approach seems unworkable to us for two reasons. First, it will be impractical, if not impossible, to only partially broaden the scope of Subpart H piecemeal without having to revisit the scope over and over again to address subsequent technological developments and may not be foreseen. And, second, partial expansion of the scope of Subpart H will trigger a new wave of development of technologies, components, devices, and systems that are intended to evade the heightened FRA oversight.

Application of Subpart H to all technologies, components, devices, and systems that do not fall under the scope of Subparts A–G is the most sensible approach. Designers and manufacturers will know, from the first step, what safety requirements must be met. As each element of an evolving PTC or other signal and train control system is placed on line, satisfaction of Subpart H will facilitate qualification of new configurations and increasing sophistication. To the extent prequalification can be accomplished today it will be more economical, because the cost of risk analyses would be paid in current dollars.

No less important is the fact that safety will be enhanced by the elimination of the numerous cracks through which currently unregulated technologies, components, devices, and systems fall at the present time. We appreciate the opportunity to have participated in this matter, and strongly recommend FRA proceed in the direction outlined herein.

Respectfully submitted,



Vice President and National Legislative Representative

cc: Grady C. Cothen, Jr., Esquire, FRA Deputy Associate Administrator for Safety Standards
and Program Development
Robert S. Svob, Jr., AZ SLBC
Thomas A. Pontolillo, Director of Regulatory Affairs