



June 11, 2009

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

**JOINT PETITION BY THE BROTHERHOOD OF LOCOMOTIVE
ENGINEERS AND TRAINMEN AND THE UNITED
TRANSPORTATION UNION FOR AN EMERGENCY ORDER TO
PROHIBIT THE USE OF ONE-PERSON OPERATING CREWS,
INCLUDING REMOTE CONTROL OPERATIONS**

Pursuant to Title 49 U.S.C. § 20104, The Brotherhood of Locomotive Engineers and Trainmen (“BLET”) and the United Transportation Union (“UTU”) hereby petition the Federal Railroad Administration (“FRA”) for an emergency order to prohibit one-person operating crews,¹ including remote control operations. Such railroad operations have been nothing more than the industry’s attempt to reduce operating costs to increase profits, at the expense of worker safety.

¹ By “operating crew” we mean the complement of engine service personnel and train service personnel assigned to a given train or assignment.

The need for such an order immediately was most recently and tragically demonstrated by an incident on the CSX Railroad at Selkirk, N.Y. on May 10, 2009. In this incident, an employee was killed while working alone and using a remote control device. He was ordered by his supervisor to change a knuckle on a car without any assistance. The employee never received any training on how to change a knuckle wearing a remote control operator control unit (“OCU”), and did not remove the OCU while attempting to change the knuckle. Unfortunately, while located between the cars, he was crushed and killed by movement of his remote control locomotive (“RCL”) on the track where he was working. In spite of this tragedy and another indication that single person operations of any type are unsafe, CSX continues to attempt to operate with single person remote control crews.

CSX was aware for perhaps as many as 48 hours that this particular car that was involved in this accident needed a knuckle replaced, and the CSX management chose not to set this car in a safe location where the repair could be made in a normal manner. Nor did CSX assign this work to qualified car repair personnel who were available at Selkirk during this period.

CSX has also never provided training on the proper ergonomic techniques to be used when attempting to change a knuckle while wearing a remote control operator control unit.

Single person remote control operations are a very serious hazard for a number of reasons. Any person having safety concerns in mind should recognize that a single-person remote control assignment should never be allowed. It puts rail workers at great risk of injury or death.

The workload associated with such operations, while performing other safety critical tasks, demands too much of a single individual, and inevitably produces loss of situational awareness. This task overload has caused many incidents and injuries; there are a limited number of activities that any human being can manage simultaneously. Single person operations, especially using remote control, exceeds human capacity for simultaneous management of multiple activities in a safe manner.

Indeed, the magnitude of what is expected of a single person RCL crew is daunting. Two very distinct jobs – operating a locomotive and classifying cars – have been combined into a “to do” list of this single individual. Complicating things further is the fact that each of those distinct jobs includes a complex list of individual tasks that must be correctly and accurately in order to ensure safe operations.

When a two person RCL crew operates in “pitch & catch” mode, the sets of tasks are combined for both individuals, but there is – at least – the opportunity for one to notice an error by the other and correct it in time to avoid disaster. When a single individual is switching between an increased number of tasks, the possibility for error is compounded dramatically and there is no safety net.

In this regard, it should be noted that complexity of RCL operations also introduce new sources of error and failure when they conflict with the inherent ways in which the human mind processes information. Typical switching procedures are usually designed to be followed step-by-step under the assumption that events proceed in a linear fashion. This would be true if the crew can control the sequence and timing of events.

However, external agents (e.g., other crews, yardmasters, mechanical and maintenance of way forces, etc.) impinge on the ideal timing and sequence with their own requests, demands, and interruptions. These distractions force a crew to reorder or postpone tasks; a process that creates innumerable opportunities for error. Without the benefit of a second crew member to help assure that no steps are “lost in the shuffle,” the risk resulting from forgetfulness secondary to task overload and distraction has become simply too high.

In the aftermath of the Chatsworth tragedy, FRA acted swiftly and correctly to stem the distracting effects of various forms of personal electronic technology upon operating crews by promulgating Emergency Order No. 26. Severe restrictions were placed on the use of these devices because they have the capacity to cause a crew member to lose focus on the task at hand.

We submit that the same problem exists with respect to single person operating crews, particularly in RCL operations. The RCO is expected to handle all aspects of the switching operation, and will be required to perform multiple tasks – such as operating the locomotive, walking, and referring to switch lists – at the same time. What is usually misidentified as “multitasking” is, in actuality, rapidly switching among discrete tasks, each of which distracts the RCL from fully focusing on those tasks that pose the highest risk to his or her personal safety. This is unacceptable.

All of the equipment being used by CSX and all other railroads was manufactured to be used in a two person operation, with a “pitch and catch” option. Also the “Man Down” safety feature was designed to alert the second crew member of the need for help in the event a Remote Control Operator becomes incapacitated.

Additionally, there have been many problems confirmed with the loss of communications between the OCU and the RCL. Lastly, there are a number of ergonomic issues related to the equipment used by the railroads, the effects of which have never been adequately addressed.

The injuries and deaths caused by remote and single-person crew operations have continued unabated since its inception in the early 1990s. This has been caused in part by the inaction of the FRA on a number of petitions filed both by BLET and the UTU for regulations and emergency orders to prevent such operations. The evidence shows that no conditions exist where a lone engineer or single person remote control operations are safe.

A brief review of the history of this issue is informative in demonstrating that this has been an ongoing problem for many years. During the early 1990s, a few railroads began using remote control operations and the FRA reviewed the safety aspects of one-person crews, but the agency has really done nothing affirmatively to assure the safety of the employees in such operations. In January 1993, the Wheeling & Lake Erie Railway petitioned FRA for a waiver so that remote control devices could be used with lone engineers. On November 18, 1994, FRA issued a notice that it would conduct a two-year test program for such operations. 59 Fed. Reg.

59827. The UTU petitioned the FRA to prohibit any use of remote control devices, but FRA denied the petition. 61 Fed. Reg. 58737.

Also, in 1993, FRA granted authority for the railroads to use “utility” employees without affording blue flag protection, except in helper service or single hostler service. The FRA recognized that, at times, train or yard crews had only one person. On March 1, 1995, the FRA amended the rule. 60 Fed. Reg. 11047. In its notice, FRA expressed concern “with the unique risk faced by lone engineers despite the current lack of evidence of a substantial injury record for one-member yard crews. An engineer assigned to helper or hostler service must frequently perform work, such as placing rear end markers or making connections between locomotives, that puts that employee in danger, particularly when this work is performed in . . . congested terminals and rail yards.” 60 Fed. Reg. at 11048.

In 1996 the Wisconsin Central proposed using one-person crews for some of its over the road operations. In April 1996, the UTU petitioned the FRA for an emergency order banning the railroad from using one-person crews for such operations. The FRA denied the UTU’s petition and granted in part the railroad’s petition, while acknowledging that there were no data to show that the operations would be safe. In addition, in September 1996, the railroad notified FRA that it wanted to begin using remote control

devices to move locomotives in two of its rail yards in Wisconsin. On September 17, 1996, the UTU, once again, petitioned the FRA for an emergency order banning the use of remote control devices by all railroads. Subsequently, the FRA conducted public hearings on the issue. On January 10, 1997, FRA allowed the railroad to continue its limited use of one-person crews, but not remote control because of a high accident rate.

On December 15, 1997, the Wisconsin legislature enacted legislation which required a minimum of two persons for all train crews operating within the state. In 1999, this law was upheld by the U.S. Court of Appeals for the Seventh Circuit.

At a Technical Conference hosted by FRA on July 19, 2000, both the BLET and the UTU argued against the use of RCLs, pointing out that such operations should be designed to ensure the safety of the employees. The BLET filed a Petition for Rulemaking on November 17, 2000, requesting that FRA promulgate a regulation to govern all remote control operations if they were going to be permitted. *See*, Docket No. FRA-2000-8422. With that petition still outstanding, FRA's newly-appointed Administrator, instead, published Safety Advisory 2001-01 on February 14, 2001, setting forth "recommended minimal guidelines" for remote control operations. FRA stated that it "has limited data on which to base an objective safety analysis

and must therefore proceed prudently.” At the time BLET noted that there had been numerous accidents involving the RCLs, and pointed out that should a ground person operating a RCL be involved in an accident or hazardous spill, that person may not be able to respond if he or she is rendered incapacitated. Later that year several major railroads began using RCOs.

After waiting more than 15 months for FRA to act on its Petition for Rulemaking, on March 22, 2002, the BLET filed suit against the Department of Transportation (“DOT”) and the FRA, in the U.S. District Court for the District of Columbia. The suit alleged that DOT and FRA had failed to fulfill their statutory obligation to inspect, prescribe tests for, and issue regulations on remote control locomotives, but was dismissed by the Court.

Nearly a year after that, on March 11, 2003, the AFL-CIO Transportation Trades Department called upon the FRA to issue an emergency order immediately stopping the use of RCLs until formal federal regulations were promulgated. In that letter, TTD reminded the FRA that it had been over two years since the BLET had filed its Petition for Rulemaking. By that time, there had been over 40 accidents involving RCLs. It is curious that FRA attempted to explain away those accidents by blaming over half of them on employee error.

On March 2006, in a Final Report entitled “Safety of Remote Control Locomotive (RCL) Operations,” the FRA concluded that RCL and conventional train accident rates were basically the same. In a May 16, 2006 letter, the BLET sharply criticized the reliability of FRA’s findings. The BLET pointed out that the data analysis in the Final Report contained three major flaws: (1) the accident rates calculated for each railroad failed to normalize the data to account for different crew sizes in RCL and conventional operations, even though FRA had previously stated that normalization was required in order to make an apples-to-apples comparison; (2) FRA’s calculation of mean accident rates used a flawed statistical methodology; and (3) FRA conflated overall accident rates with human factor rates in a way that understated human factor-caused RCL accidents.

BLET pointed out that, after correcting for these errors, the data actually showed that the mean RCL accident rate was nearly 3½ times the conventional switching accident rate. Similarly, correcting mean injury rates reversed the findings as to which operation was safer. Rather than conventional switching having an injury rate 45% higher than RCL, the data actually establish a RCL injury rate almost 80% higher than the conventional

switching injury rate, and the normalized RCL fatality rate was over 3½ times the normalized conventional switching fatality rate.

Despite these shortcomings, the Final Report did acknowledge some significant findings:

- Because remote control locomotives ultimately are controlled by on-board computers, RCO introduces a level of mechanical hazard into switching operations that does not exist in conventional switching operations.
- Certain design features of the “black box” actually may increase the likelihood that an unintended movement will occur.
- The lack of a requirement to provide human protection at the leading point of a movement (blind shoves) undermines, if not defeats, the purpose of designated “remote control zones.”
- Training provided RCO’s was routinely criticized as lacking in sufficient time and detail.

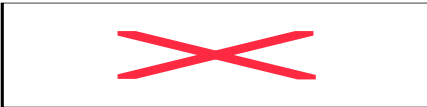
In Safety Advisory 2007-01 the FRA addressed the point protection problem referred to in the 2006 Report. That problem was resolved with finality when FRA promulgated Subpart F of Part 218 on February 13, 2008. It should be noted, however, that the industry resisted requiring strict point protection for RCL operations during the discussions that led to Subpart F, going so far as to include the subject in its Petition for Reconsideration after the rule was published.

To the best of our knowledge, no additional comparative data have been published since FRA’s 2006 Final Report. Therefore, there continues to

exist only limited data on which to base an objective safety analysis, and those data confirm significant safety problems with RCL operations. Consequently, it should be unsurprising that serious and sometimes deadly consequences continue to exist in those areas where RCL is used. How many more incidents like the one at Selkirk need to occur before such operations are prohibited? It is time for the FRA to take a proactive safety stance, and not merely a band-aid reactive approach to this issue. The Petition for an emergency order should be granted.

Respectfully Submitted,

Edward W. Rodzwicz



Malcolm R. Futhay, Jr.

A handwritten signature in black ink, reading "M.R. Futhay, Jr." with a superscript "nt" to the right.