KILMER, VOORHEES & LAURICK
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

732 N.W. 19TH AVENUE
PORTLAND, OREGON 97209

TELEPHONE (503) 224-0055
FAX (503) 222-5290

Carolyn L. Larson
clarson@kilmerlaw.com
Admitted in Oregon and Washington

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VIA FAX AND U.S. MAIL

Carole J. Washburn
Washington Utilities and Transportation Commission
1300 E. Evergreen Park Drive S.W.
P.O. Box 47250
Olympia, WA 98504-7250

Re: Comments of The Burlington Northern and Santa Fe Railway Company (BNSF) and Union Pacific Railroad Company (UP) on Point Protection Rulemaking
Docket No. TR-040151

Dear Ms. Washburn:

BNSF and UP hereby submit comments in response to the Notice of Opportunity to File Written Comments (NOFWC) issued February 20, 2004.

The NOFWC completely ignores the threshold jurisdictional issue of whether this Commission is seeking to regulate subject matter that is covered by federal regulation. The Federal Railroad Safety Act (FRSA) was passed in 1970 "to promote safety in every area of railroad operations and reduce railroad-related accidents and incidents." 49 U.S.C. § 20101. In the FRSA, Congress delegated to the Secretary of Transportation the authority to "prescribe regulations and issue orders for every area of railroad safety..." 49 U.S.C. § 20103(a). The FRSA clearly provides that the rules regulating railroad safety "shall be nationally uniform to the extent practicable" and expressly preempts state authority to adopt safety rules except in situations where the Secretary of Transportation has not acted to cover the subject matter of the state requirement.

The proposed rules on point protection encroach upon areas preempted under federal law. As the railroads pointed out in their prior comments in Docket No. TR-021465, the topic of Remote Control Locomotive (RCL) operations is clearly preempted. RCL refers to control of train movements with aid of on-board computers. In a statement issued on March 11, 2003 by its Administrator, Allan Rutter, the Federal Railroad Administration (FRA) stated:

> Based on safety data gathered to date, there is nothing to indicate that remote control operations should be banned from use. In fact, in cases where the FRA has identified potential problems associated with remote control operations, railroads have been extremely responsive in addressing such issues.

> Our commitment remains to proceed cautiously, closely monitoring the use of remote control technology. If we identify safety problems associated with this technology, we will move quickly to mitigate those safety risks, using the full range of enforcement and regulatory measures at our disposal.

In keeping with that policy statement, the FRA has continued to closely monitor remote control operations. In addition, at the request of Senators McCain and Hollings, the FRA is conducting a safety audit of RCL operations and gathering detailed information to compare the safety of operations involving RCLs and those involving manned locomotives. It is assessing the effect of remote control operations on employees and local communities. This "Remote Control Locomotive Safety Audit" will generate an interim and final report. FRA's safety audit will provide an empirical basis for determining the need for further regulation, if any.

Under the circumstances, it is not necessary for the WUTC to adopt any regulations pertaining to remote control operations. The FRA, which has the expertise and interest to study what (if any) regulations are needed, is fully engaged in reviewing that issue. This Commission should refrain from taking any official action on this docket (which relates to both remote control and conventional operations) until the FRA safety audit is completed. Because all railroads operating in the State of Washington are currently following guidelines and procedures that are consistent with the WUTC's proposed rules, this would not adversely affect the railroads, railroad workers, or the public.

If the Commission wishes to press forward with proposed rules for point protection, BNSF and UP offer the following comments regarding the specific rules.

WUTC's Proposed Point Protection Rules

The proposed rules deal with point protection. As BNSF and UP have previously pointed out in response to earlier efforts to regulate the subject of point protection in connection with RCL operations at grade crossings in Docket No. TR-021465, all RCL movements are made in a manner approved by the FRA guidelines and consistent with each railroad's operating practices. For BNSF and UP, the point protection rules for manned locomotives are already addressed by the General Code of Operating Rules (GCOR). With respect to remote control operations, the safety of point protection and all other aspects of RCL operations have been continually monitored by the FRA.

The NOFWC incorrectly assumes that all railroads operating in the State of Washington abide by the same rules pertaining to remote control operations. In fact, the RCL-related rules for BNSF and UP (and for Puget Sound & Pacific) are not in the GCOR and are not identical. Copies of the remote control rules of BNSF, UP and the PS&P are attached. Each railroad has developed its own rules to apply to unique operating situations or to reflect practices and

operating policies on a particular railroad. The RCL rules of each are found in the timetable, system special instructions or general orders. The railroads that have adopted the GCOR are, however, working on a consistent set of RCL rules that could be incorporated in the GCOR when it is republished in April 2005. Even then, those operating rules will be subject to modification and revision by individual carriers as conditions, technology or experience warrant. This is an area in which industry innovations and initiatives should be encouraged as new technology is rapidly changing the equipment and conditions under which railroads operate.

The California Case

It is the railroads' understanding that Staff's proposal to codify the railroad operating rules was based on the recent decision of the Ninth Circuit Court of Appeals in *Union Pacific Railroad Company, et al. v. California Public Utilities Commission, et al.* 346 F.3d 851 (9th Cir. 2003). There, the Ninth Circuit considered whether the FRSA preempted the California Public Utilities Commission (CPUC)'s imposing civil penalties against the railroads for failure to follow their own internal rules governing a cluster of interrelated "track train dynamics" (TTD) issues, including train length and distribution of light and heavy cars in trains operated over mountain grades. However, rather than codifying the TTD rules, CPUC permitted the railroads to continue to employ their own internal rules pertaining to TTD but required them to obtain advance approval from CPUC before making any changes to their rules that would reduce the margin of safety. The Ninth Circuit concluded that the FRA had not "covered" the subject matter of TTD, but it remanded to the district court the issue of whether the provision for advance approval of rule changes constituted an unreasonable burden on interstate commerce. Those proceedings are still pending.

There are some crucial differences between CPUC's TTD rules that were upheld by the Ninth Circuit and the rules for point protection that Staff is proposing for adoption here. They include the following:

1. Staff would require all rail carriers operating in the State of Washington to adhere to the same rules. This means that some of the smaller carriers, such as Puget Sound & Pacific, would be compelled to modify their internal rules to conform to the Commission's rules. There is no basis in this record to determine that the rules employed by UP or BNSF are appropriate for other railroads. The CPUC allowed the railroads to continue to apply their own internal rules for TTD. In fact, at one location where BNSF operates on trackage rights over UP track, the railroads use different TTD rules for the same territory.

2. Staff would lock in place rules governing point protection that it has selected for adoption. In view of the fact that some of these rules have not yet been adopted by the railroad industry in the GCOR, this will create a strong potential for confusion if the railroads should adopt different rules for system-wide application when they take up this matter next year. In addition, no regulatory mechanism has been provided by Staff for modifying the rules. This means that the railroads could not tailor the GCOR rules to deal with particular situations or to address safety issues or problems that were unforeseen. The railroads must have the flexibility to

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modify their operating rules in a manner that will maximize the safety of RCL operations as they gain more experience with this new technology. In California, BNSF and UP may make immediate changes to their TTD rules where the resulting rule would be more restrictive and they can implement less restrictive changes on 30 days' advance notice to CPUC provided they furnish sufficient justification for the changes.

3. Staff's proposed rules for point protection were developed without input from personnel who are qualified in the area of operating practices. This Commission currently does not have any inspectors who are certified by FRA to enforce operating rules compliance. Certification as an "Operating Practices" (OP) inspector requires extensive training. In addition, the inspector must conduct a minimum number of inspection days in order to receive the required periodic retraining from FRA that is required to maintain his or her certification. Although Staff has hired someone to fill its OP vacancy, it will be months, and possibly years, before the new employee will be qualified to perform a rules compliance inspection unassisted by FRA. By way of comparison, CPUC has eight OP inspectors who are currently certified by FRA.

4. The proposed rules leave considerable latitude for personal judgment and discretion, which creates the potential that Staff will substitute its interpretation for that of experienced railroad operating personnel. To illustrate, Rule 1 would require crew members to take "an easily seen position on the leading car or engine"... "when conditions require". Rule 3 provides that the warning to approaching traffic is not required when..."it is clearly seen that no traffic is approaching." These provisions call for a subjective judgment on the part of the railroad operator. How will disagreements be resolved if Staff questions the carrier's application of its own rules? The TTD rules that CPUC adopted largely avoid this problem because they establish objective technical criteria for configuring trains to operate over specified sites.

5. CPUC's TTD rules, which were adopted in 1997, were the culmination of two formal administrative proceedings. First, CPUC conducted an exhaustive 3-year investigation of a derailment that occurred on the Southern Pacific Transportation Company in 1991 in which TTD factors were implicated. This was followed by a formal rulemaking that included all of the major California railroads that lasted four more years. In the rulemaking, CPUC staff performed a detailed accident analysis and amassed a voluminous evidentiary record on which the CPUC based 153 separately stated findings of fact and 49 conclusions of law. Even so, most of CPUC's regulations did not withstand legal scrutiny. In stark contrast to CPUC's rulemaking, the administrative record in this docket lacks *any* scientific, technical, economic or other evidence to support the need for the proposed point protection rules. The public workshops conducted in Docket TR – 021465 were so politically and emotionally charged due to the sensitivity of the underlying labor issues that they cannot be relied upon to substantiate the need for the proposed point protection rules. There was little opportunity for rational discourse and none of the commentators were under oath or subject to cross examination.

6. CPUC's determination of its jurisdiction was supported by FRA, which intervened in the railroads' federal court challenge of CPUC's TTD and other rules. The FRA's

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determination that its regulations do not substantially subsume the subject matter of CPUC's TTD rules was clearly a factor in the Ninth Circuit's ruling against the railroads on this issue. Id., at 867.[1] There is no indication that this Commission has even approached FRA to discuss its proposed codification of carrier rules pertaining to point protection, and, considering FRA's extensive and ongoing involvement in this area, it is unlikely that FRA would approve Staff's single minded approach to regulation – prescribing arbitrarily chosen operating rules that all railroads operating in this state must follow.

Questions Posed in the NOFWC

(1) Whether the Commission should adopt general point protection rules?

The prescriptive nature of the proposed WUTC rules is in conflict with Part 217 of Title 49 of the Code of Federal Regulations (Part 217). The regulatory systems covering railroad operating rules provides for FRA oversight and participation in railroad operating rules development. Through the requirement in Part 217 that railroads must file with FRA all operating rules and changes, FRA remains knowledgeable of railroad operating rules. If inadequacies are perceived, FRA issues safety advisories and directives, and it confers with the railroads.

If mandatory standards are to be adopted in place of a carrier's operating rules, they should be developed pursuant to a uniform national rule. This Commission would have the opportunity to influence the FRA's agenda through participation in the federal rulemaking process. The resulting rules should be supported by the best reasonable obtainable scientific, technical, economic and other information concerning the need for and consequences of the intended regulation.

It is also apparent that Staff is unfamiliar with the practical realities that attend to the development of railroad operating rules. These rules reflect practical experience with actual operations. Rail carriers must be allowed to change the rules to adapt to changing circumstances and address specific situations. This is particularly true where the operating environment is rapidly evolved as a result of the implementation of new RCL technology. This is not an appropriate time to lock in place rules that undergoing further development.

(2) Whether Staff has selected the right rules to regulate?

As pointed out in the comments above, if Staff's intent was to adopt GCOR rules governing RCL operations, this proceeding is premature. The railroads are not scheduled to promulgate GCOR rules for RCL operations until next year.

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[1] However, the Ninth Circuit invalidated the TTD rules to the extent they regulate the use of couplers and remanded to the district court to determine whether CPUC may enforce the railroads' remaining TTD rules in the absence of the coupler restrictions. Id. at 870.

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(3) What it would cost the railroads?

The costs to the railroads of this arbitrary and ill-conceived regulatory scheme are potentially enormous. Next year, if the railroads adopt different rules in the GCOR for system-wide application, the WUTC rules will become an aberration. And, even if the railroads were to adopt the identical rules in the GCOR, the inability to make modifications to address local conditions or safety concerns would substantially increase the risk of accident. By failing to recognize that rail safety is essentially a matter of federal responsibility, this state seeks to undermine the uniformity of the national regulatory scheme. If left unchecked this could lead to a patchwork of inconsistent state regulation, which would be clearly anathema to safety. Finally, permitting states to develop conflicting interpretations of carrier operating rules would make it extremely difficult to foster compliance with railroad operating rules. It is hard to quantify the potential harm that would result from adoption of the proposed WUTC rules, particularly in the short time allowed under the NOFWC, but it would be substantial.

There has been no showing how these rules will reduce risks to public health and safety or how the magnitude of the risk addressed by this action relates to other risks within the railroad safety jurisdiction of this Commission. Additionally, as discussed previously, the proposed rules are not supported by any evidence of necessity.

BNSF and UP have always stood willing to discuss means of improving rail safety. They have no objection to attending workshops to address any state safety concerns that may be associated with their respective operations.

Very truly yours,

KILMER, VOORHEES & LAURICK, P.C.

Carolyn Larson
Attorney for Union Pacific Railroad Company

THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY

Douglas Werner
Sr. General Attorney

CLL/CAH:hvw
Enclosures

BNSF – System Special Instructions in the Timetable

23. Remote Control Operations
23(A) Remote Control Operating Instructions
a. Employees assigned to a remote control crew are governed by these instructions and must have a current copy accessible while on duty.
Remote Control Operators (RCO) will be issued an Operator's Manual, which governs the operation of a Remote Control System.
All rules or instructions contained in other company publications will remain in effect unless specifically exempted in these instructions.
b. Prior to operating a Remote Control Transmitter (RCT), a job/safety briefing must be held among all crew members. All remote control crew members must be informed and clearly understand which crew member will be controlling the movement. Before the control of the Remote Control Transmitter is transferred from one crew member to another, the receiving Remote Control Operator must be notified and acknowledge they are in a position to assume control.
c. A crew member must not go between or work on the end of rail equipment coupled to a remote control locomotive or when a remote control locomotive is on the same track until each member of the crew has been informed of the work to be performed. The Remote Control Operator must ensure that the Remote Control Transmitter's speed control is in the STOP position and the directional control is in neutral. The Remote Control Operator must acknowledge that he/she understands that another employee will be going between equipment by announcing via radio "set and centered." The speed and direction controls must not be repositioned or control of the Remote Control Transmitter transferred to another operator until each crew member has advised the Remote Control Operator that they are "in the clear."
d. Each Remote Control Operator must have in their possession an operative holstered hand-held radio equipped with a microphone.
e. Except when the primary Remote Control Operator is riding the leading locomotive, remote control movements are to be considered "shoving" movements, regardless of direction or position of remote control locomotive.
f. Each remote control locomotive must have a tag placed on the control stand indicating the locomotive is being used in a

remote control mode. The tag must be removed and secured with the Remote Control Transmitter when the locomotive is placed in manual mode.

23(B) Setup and Testing

Prior to operating a Remote Control System, the Remote Control Operator must ensure the equipment is properly setup and tested in accordance with prescribed procedures. If two Remote Control Transmitters are to be utilized in a "shared" or "pitch and catch" operation, both must be tested.

23(C) Operating the Equipment

a. Only qualified operators or students who have been trained in remote control operations may operate a Remote Control Transmitter.

b. A Remote Control Operator shall control only one locomotive consist at a time with a Remote Control Transmitter and shall not operate simultaneously any other locomotive.

c. When using "shared" or "pitch and catch" operations, the procedure for changing operators is specified in the operators' manual.

d. Operation of the Remote Control Transmitter must not be performed from a moving motorized vehicle.

e. Dropping of cars is prohibited during remote control operations except at locations specifically authorized by special instructions.

d. When using a remote control locomotive in "shared" or "pitch and catch" operations to make a coupling, the Remote Control Operator located at the coupling must be the primary operator.

23(D) Securing Equipment

a. Remote control locomotives and Remote Control Transmitters must not be left unattended unless secured and/or disabled. For remote control system purposes, "unattended" means remote control locomotive is not set up (linked) to an operating Remote Control Transmitter in the possession of a crew member.

When leaving equipment for meal period, break, etc., the Remote Control Operator will secure remote control locomotive as required and turn the Remote Control Transmitter power off.

When ending tour of duty, the Remote Control Operator must place the locomotive in the MANUAL mode unless being relieved by another Remote Control Operator. If another Remote Control Operator is relieving a Remote Control Operator, a job/safety briefing must be held between the employees.

b. Spare Remote Control Transmitters must be stored with

power off and battery removed.
23(E) Remote Control Area
a. Division Timetable Special Instructions will designate areas of remote control operations. Signs advising that remote control operations may be in effect will be posted at access locations to Remote Control Areas.
b. The Remote Control Operator in control of a remote control locomotive must be notified of any track removed from service or working limits established for the protection of another craft. The Remote Control Operator must conduct a job/safety briefing with all members of the crew.
23(F) Remote Control Zone (RCZ)
a. Special Instructions will designate limits of Remote Control Zones. Signs advising that Remote Control Zones may be in effect will be posted at access locations to Remote Control Zones. Only the Remote Control Operator may activate a Remote Control Zone. Remote Control Zone limits do not include tracks within CTC or interlocking limits (CTC or interlocking rules apply).
b. When a Remote Control Zone is activated, the Remote Control Operators are relieved of point protection for pullout movements (locomotive on leading end) only. Rule 6.28 requirement to stop within half the range of vision is waived. After Remote Control Zone is activated, Remote Control Operator must ascertain that switches/derails are properly lined and track(s) within zone are clear of trains, engines, railroad cars and men or equipment fouling track before initial pullout movement. This process must be repeated each time the Remote Control Zone is activated.
c. When Remote Control Operator ends the tour of duty:
* The Remote Control Zone must be deactivated.
* The Remote Control Zone may remain active if a job safety/briefing is conducted with the relieving Remote Control Operator.
or
* The Remote Control Zone may remain active if the subdivision special instructions specify the hours the Remote Control Zone is active.
d. Before entering a Remote Control Zone, all employees that are not part of the remote control crew must determine whether the zone is activated. Employees may receive this information from the Remote Control Operator or from the supervisor in charge of yard movements. When the Remote Control Zone is activated, track(s) within the zone must not be fouled with equipment, occupied or switches operated until the Remote Control Zone has been

deactivated.
23(G) RCO Terms
Remote Control Area - Area designated by special instructions for remote control operations.
Remote Control Operator (RCO) - A certified Remote Control Operator who may operate a locomotive with or without cars by means of a Remote Control Transmitter.
Remote Control Transmitter (RCT) - Hand operated device that gives operator speed and braking control of remote control locomotive.
Remote Control Zone (RCZ) - Track(s) identified within a Remote Control Area where Remote Control Operators are relieved of point protection during pullout movements when Remote Control Zone is activated.
"Shared" or "Pitch and Catch" - Process used for changing primary control of Remote Control Transmitters between crew members. Change of control may only be performed while remote control locomotive is stopped.

UNION PACIFIC RAILROAD COMPANY

Item 10-C. Air Brake & Train Handling Rules, Chapters 30 to 39

35.0 Remote Control of Locomotives
Add new rules 35.1 through 35.6.4 as follows:

35.1 Remote Control Operating Instructions

35.1.1 Employees assigned to Remote Control Crew

Employees assigned to a remote control crew are governed by these instructions and must have a current copy accessible while on duty.

Remote control operators (RCO) will be issued an operator's manual, which governs the operation of a remote control system.

Remote control operators are issued equipment, including a special vest to hold the remote control transmitter, lights and/or other equipment to assist in the performance of their duties. Each RCO must have in their possession an operative, holstered hand-held radio equipped with a wired microphone. This equipment must be used for the intended purpose and as designed by the manufacturer.

Remote Control Transmitters are considered a safety device. Employees are prohibited from tampering with or disabling any remote control transmitter or safety feature except as provided for in RCO rules. Employees are prohibited from knowingly using a remote control transmitter with a disabled safety device.

All rules or instructions contained in other company publications will remain in effect unless specifically exempted in these instructions.

35.1.2 Job Briefing

Before operating a remote control locomotive, a job briefing must be conducted including all crew members. All remote control crew members must be informed and clearly understand which crew member will be controlling the movement.

35.1.3 Going Between Equipment

A crew member must not go under or between cars coupled to a remote control locomotive or when a remote control locomotive is on the same track until each member of the crew has been informed of

the work to be performed. The primary RCO must ensure that the remote control transmitter's speed control is in the stop position, the directional control is in neutral, and the air brakes are applied. Each remote control operator must acknowledge that he/she understands that another employee will be going between equipment by announcing via radio "set and centered." The speed control, direction control, and air brakes must not be repositioned on the remote control transmitter or control of the remote control transmitter transferred to another operator until each crew member has advised the Primary RCO that they are "in the clear."

35.1.4 Shoving Movement

Except when the primary RCO is riding the leading locomotive, remote control movements are to be considered "shoving" movements, regardless of direction or position of remote control locomotive.

35.1.5 Remote Control Mode

Each locomotive in the remote control consist must have a tag placed on the control stand indicating the locomotive is being used in a remote control mode. The tag must be removed when the locomotive is placed in manual mode.

35.1.6 Road Crossing Equipped with Cameras

When movements are made over a road crossing equipped with cameras, unless the RCO is on the engine or a crew member is at the crossing to provide warning, the RCO must:

- **Be in position to observe the crossing and roadway approaches in the monitor to assure that automatic crossing warning devices activate as designed when the RCL approaches and remain activated until the crossing is occupied by engine or cars;**

- **Make sure movement over crossing does not exceed 4 MPH until crossing is occupied.**

35.2 Setup and Testing

Prior to operating a remote control system, the RCO must ensure the equipment is properly setup and tested in accordance with prescribed procedures. When one remote control transmitter is to be utilized, only one transmitter will be linked and tested. If two remote control transmitters are to be utilized, the conductor/engine foreman

must always link first as "Operator A" and the helper/switchman will link second as "Operator B". When two remote control transmitters are to be utilized in a "pitch and catch" operation, both must be tested.

Operating the Equipment

35.3.1 Qualified Operators

Only qualified operators or students who have been trained in remote control operations may operate a Remote Control Transmitter.

35.3.2 One Locomotive Consist

A RCO shall control only one locomotive consist at a time with a Remote Control Transmitter and shall not operate simultaneously any other locomotive.

35.3.3 "Pitch and Catch" Operations

When using "pitch and catch" operations, the procedure for changing operators specified in the Operator's manual must be used. Before control of the remote control Locomotive can be transferred from one crew member to another, the receiving remote control operator must be notified verbally and acknowledge verbally being in position to assume control.

35.3.4 Moving Motorized Vehicle

Operation of the Remote Control Transmitter must not be performed from a moving motorized vehicle.

35.3.5 Dropping of Cars

Dropping of cars is prohibited during remote control operations except at locations specifically authorized by the Superintendent.

35.3.6 Coupling Cars

When using a remote control locomotive in "pitch and catch" operations to make a coupling, the RCO located at the coupling must be the primary operator.

35.3.7 Initiating a Movement

Before initiating a movement, the remote control operator or crew member must be in a position to visually determine the direction the equipment will move.

35.3.8 Movement of Lite Remote Control Locomotive

The primary operator must take a position on the leading end of a lite remote control locomotive consist prior to moving when the movement will exceed the length of the remote control consist.

Securing Equipment

35.4.1 Secure Remote Control Devices and Locomotives

Remote control locomotives and remote control transmitter(s) must not be left unattended unless secured and/or disabled.

When leaving equipment for meal period, break, etc. (short term securing), the RCO will secure remote control locomotive as required and turn the remote control transmitter power off or put in "sleep" mode. The remote control operator must maintain possession of the Transmitter(s).

When ending tour of duty, the remote control operator must place the locomotive in the MANUAL mode and secure the locomotive unless another remote control operator is relieving the current remote control operator. When that occurs a job briefing must be held between employees. Transmitters must be transferred from conductor/foreman to conductor/foreman (Operator A) and helper/switchman to helper/switchman (Operator B).

35.4.2 Storing Remote Control Devices

Spare remote control transmitters must be stored with power off. Battery must be removed and placed in a charger.

Remote Control Area

Designated Remote Control Areas

Timetable Special Instructions will designate areas of remote control operations. Signs advising that remote control operations may be in effect will be posted at access locations to Remote Control Areas.

35.5.2 Track Removed from Service or Working Limits

The RCO in control of a remote control locomotive must be notified of any track removed from service or working limits established for the protection of another craft. The RCO must conduct a job/safety briefing with all members of the crew.

Remote Control Zone

Designated Remote Control Zones

Timetable Special Instructions will designate limits of Remote Control Zones. Signs will be posted at access locations to Remote Control Zones. Only the RCO may activate a Remote Control Zone. Remote control zone limits do not include tracks within CTC or interlocking limits (CTC or interlocking rules apply).

Activated Remote Control Zone

When a remote control zone is activated, the RCO must ascertain that switches/derails are properly lined and track(s) within the zone are clear of trains, engines, cars and men or equipment fouling track. The RCO is then relieved of point protection and the requirement to stop in one half the range of vision for pull out movements with locomotive on the leading end only.

An active remote control zone may be transferred to remote control operators on other remote control assignments. If a remote control zone is transferred:

A job briefing must be conducted each time the zone is transferred between remote control operators.

The RCO taking control of the zone must ascertain or have information that the zone is clear and switches are properly lined for their movement before relieved of point protection and the requirement to stop in one half the range of vision.

A job briefing must be conducted between the remote control operators before the zone is deactivated if both assignments are on duty.

35.6.3 Ending the Tour of Duty

When the RCO ends the tour of duty:

The Remote Control Zone must be deactivated.

RailAmerica, Inc.

RULES FOR THE OPERATION OF CATTRON THEIMEG REMOTE CONTROL LOCOMOTIVES

Effective Date

September 15, 2003

LIVING INJURY FREE EVERYDAY LIFE RAILAMERICA

Designated Abbreviations:

LCU	**Locomotive Control Unit**
EPI	**Electro-Pneumatic Interface**
RCL	**Remote Control Locomotive**
RCLS	**Remote Control Locomotive System**
RCO	**Remote Control Operator**
RCZ	**Remote Control Zone**
OCU	**Operator Control Unit**

Only Certified Locomotive Engineers who are qualified for RCL operation, or Certified Student Engineers who are training under direct supervision of a qualified Engineer will be permitted to operate a Remote Control Locomotive

RCL1 Employees assigned to an RCL crew are governed by these rules and instructions and must have a current copy readily available while on duty.

RCL2 All Rules in other publications remain in effect unless **specifically** excepted in these rules.

RCL3 Crew members may enter the RED ZONE to perform duties only after appropriate RED ZONE PROTECTION has been provided. RED ZONE PROTECTION will be provided by placing the throttle lever to idle, the reverser switch in neutral and make a brake application as required.

RCL4 While an RCL is moving, crew members must not foul the track in front of the lead car or locomotive.

RCL5 Each RCL crew member shall be equipped with an operative hand-held radio or cellular telephone by which a RCL crew member can communicate with other railroad employees.

RCL6 OCUs must not be left unattended unless secured. Spare OCUs shall not be stored with batteries installed.

RCL7 Movements past any block, controlled signal (regardless of indication), or through an interlocking shall be made only when an RCL crewmember has taken a position where the signal aspect can be observed and complied with.

RCL8 Movements over public highway crossings at grade must be made only when

a RCL crew member, or another employee, has taken a position where the crossing and crossing signals can be observed and the way is known to be clear. Movement will proceed:

- In accordance with GCOR 5.8.1, 5.8.2 and 5.9

Or

- In accordance with GCOR 6.32.1

RCL9 Prior to leaving the locomotive cab to operate the RCL from a position other than in or on the locomotive, a RCL crew member must place a GREEN tag on the control stand stating, "This Unit is under Remote Control Operation". This tag must be removed by a RCL crew member when the locomotive is placed back into non remote operation.

RCL10 All RCL system failures and safety concerns must be reported in writing to the Train Dispatcher or Proper Authority.

SETUP AND TESTING

RCL11 Before taking control of the remote locomotive, install the equipment and perform required tests to be certain it will respond properly to OCU commands.

1. Mount LCU and EPI on handrails on front or rear of locomotive.
2. Connect cables between LCU and EPI
3. Connect air lines from EPI to main reservoir, actuating, independent application and release and brake pipe hoses of locomotive.
4. Connect MU cable between LCU and locomotive.
5. Mount and connect the antenna.

RCL12 Setting up a locomotive for remote operation requires the following steps.

1. Apply locomotive handbrake
2. Place Automatic brake valve cutout valve to Out position.
3. Place Automatic brake handle in handle Off position.
4. Place MU-2A to Trail or double-ported cut-out cock to out.
5. Place Independent brake valve handle to release.
6. Place Headlight switches as required by operating rules.
7. Cut in main reservoir, actuating, independent application and release and brake pipe hoses between locomotive and EPI. (NOTE – Locomotive will go into emergency)

RCL14 Setup the Locomotive Control Unit in the following steps:

1. Set the FWD END/REAR END to match the end of the locomotive that the LCU is installed on.
2. Place the Power switch to ON.

RCL15 Setup the OCU in the following steps:

1. Place the power switch to the on position.
2. Depress the Vigilance Button and make a command function.
3. OCU is functioning when a display message is given in the digital display readout.

RCL16 Perform vigilance control test:

1. Insure that Train Brake has been recovered.
2. Place Reverser Switch to either Forward or Reverse.
3. Wait approximately 50 seconds.

If the OCU is operating properly, it will initiate an FS Penalty resulting in a full service application of the brakes.

To return to operation, recover FS Penalty from OCU.

RCL17 Tilt Test:

Tilt the OCU more than 45 degrees.
If an OCU is operating properly, it will:

- Sound the continuous tone alarm after 1 sec.
- Cause a Tilt time out fault after approximately 15 seconds. This applies emergency brakes.

To return to operation, right the OCU and recover Emergency.

RCL18 Perform an standing locomotive brake test of the locomotive consist from the OCU.

RCL19 When to Test the Equipment:

1. Perform a full test as described in rules RCL16 and RCL17 when initially setting up the equipment for remote operation.

2. Perform a full test as described in rules RCL16 and RCL17 when relieving a previous operator, but only check until the alarms are heard.

RCL20 Any remote control component in need of repair must be reported on the Locomotive Inspection Report Form.

Any non-complying condition must be reported to the proper authority and rules for movement of non-complying locomotives must be followed.

OPERATING THE EQUIPMENT

RCL21 Only certified Locomotive Engineers and Student Locomotive Engineers are permitted to operate the RCL.

RCL22 Prior to operating a RCL, ensure the proper setup and testing procedures are completed. (Brake Test, Tilt Safety feature and the vigilance feature

RCL23 RCOs must use company approved harnesses for OCUs. Harnesses must not be loose fitting and must have a minimum of four points attached to the OCU.

RCL24 A RCL crew member shall operate only one RCL consist at a time, and shall not operate simultaneously any other equipment or machinery.

RCL25 - Rule reserved

RCL26 Remote control locomotives will not be used in the remote mode in close proximity to fueling stations.

SECURING EQUIPMENT

RCL27 RCLs may not be left unattended at any time unless the LCU is secured in the off position.

Setup the LCU as Follows:

1. Turn the power switch to off position.

Note: Emergency application will result

2. Cut out main reservoir, actuating, independent application and release and brake pipe hoses between locomotive and PEI.
3. Cut in Locomotive Brake system on any locomotive in the consist and recover emergency application.
4. Apply sufficient handbrakes and secure consist per applicable Airbrake and Train Handling Rules.

RCL28 When a RCL is released to the Mechanical Department (either at the mechanical facility or the RCL is placed under blue signal protection), the LCU shall be placed into off mode.

RCL29 When a RCL crew takes custody of a RCL from the Mechanical department, the transfer can take place when the LCU in either ON or OFF position. The RCL crew must make the same tests required when relieving another RCL crew.

RCL30 When going off duty, the RCL must be placed into the off mode unless being relieved by another RCL crew. A job briefing must be held between crews when being relieved.

REMOTE CONTROL ZONES

RCL31 A Remote Control Zone, when activated, is a designated area in which RCLs may operate without protecting the leading end of the movement. Zones are identified by sign postings and by special instruction.

RCL32 Prior to activating the RCZ, the following steps must be taken:

- Tracks within the RCZ must be inspected and known to be clear of trains, engines, men or equipment fouling the track, switches improperly lined, blue signals, portable derails, or other obstructions.
- It must be known that movement within the RCZ will not approach within 100 feet of a public crossing at grade.
- Switches must be properly lined and locked, if required.
- Appropriate derails must be lined in the derail position.
- Notify Train Dispatcher or proper authority that the RCZ will be activated.

Do not consider the RCZ activated until these steps are completed.

RCL33 An activated RCZ is under the jurisdiction of the RCO operating the RCL.

RCL34 A RCL crew going off duty may turn the RCZ over to the relieving RCL crew provided the Train Dispatcher or proper authority has been informed of the change.

RCL35 Prior to operating a RCL in an activated RCZ, the relieving crew must conduct a job briefing with the RCL crew going off duty. If the crew going off duty is not available, the relieving crew must hold a job briefing with the Train Dispatcher or proper authority.

RCL36 When the RCZ is vacated and no longer activated, the RCL crew must notify the Train Dispatcher or other designated employee.

PERMISSION TO ENTER REMOTE CONTROL ZONE

RCL37 Train Dispatchers will not authorize movement in an activated Remote Control Zone.

RCL38 Engineering Department employees must receive permission from the RCO before occupying or fouling any track within or adjacent to the activated RCZ. Permission must be repeated and acknowledged.

RCL39 Upon receiving permission to work within or foul the RCZ, the Engineering Department employee must provide appropriate Roadway Worker Protection. The RCO must be advised of the limits and protection provided.

RCL40 After all men and equipment are clear, and protection is removed, the Engineering Department employee in charge must notify the RCO.

RCL41 Mechanical Department employees must receive permission from the RCO before fouling any track or establishing blue signal protection within the activated RCZ. Permission must be repeated and acknowledged.

RCL42 Upon receiving permission to work within or foul the RCZ, the Mechanical Department employee must establish Blue Signal Protection, if required. The RCO must be advised of the location of blue signals, derails, and switches which have been lined.

RCL43 After all blue signals and derails are removed and switches returned to the proper position, the Mechanical Department employee must notify the RCO.

RCL44 Train or engine crews must receive permission from the RCO before occupying or fouling any track within an activated RCZ. Permission must be repeated and acknowledged.

RCL45 Upon receiving permission to enter the RCZ, the train or engine crew must comply with instructions from the RCO.

RCL46 A job briefing among all members of the RCL crew must be held any time other employees are granted permission to occupy the activated RCZ.

RCL47 Train Dispatcher or proper authority may relay instructions from the RCO to employees requesting permission to enter an activated RCZ.

RCL48 When permission is granted to other employees to occupy an activated RCZ, the RCL crew is responsible for providing protection against such employees.