

1. The first section of the document discusses the importance of maintaining accurate records of all transactions and activities.

- The second section outlines the various methods used to collect and analyze data.
- The third section describes the results of the study and the conclusions drawn from the data.
- The fourth section discusses the implications of the findings and the potential for future research.

2. The following table provides a summary of the key findings from the study:

Category	Value
Category A	12.5%
Category B	8.7%
Category C	15.3%
Category D	22.1%
Category E	42.4%

3. The data indicates a significant correlation between the variables studied, suggesting that the factors investigated have a direct impact on the outcomes measured.

- The final section of the document provides a detailed analysis of the data and discusses the implications of the findings.
- The authors conclude that the study has provided valuable insights into the relationship between the variables and the outcomes.
- Further research is recommended to explore the underlying mechanisms and to test the findings in different contexts.

Union Pacific Rules

Air Brake and Train Handling Rules

30.0: Train Air Brake Tests/Inspections Chapter 30

- [30.0: Train Air Brake Tests and Inspections](#)
- [30.1: Compliance with FRA Regulations](#)
- [30.1.1: Qualified Inspectors](#)
- [30.2: General Requirements](#)
- [30.2.1: Coupling and Securing Air Hoses](#)
- [30.2.2: Operative Brakes](#)
- [30.2.3: Employee in Charge During Air Brake Test](#)
- [30.2.4: Standard Brake Pipe Pressure](#)
- [30.2.5: Charging Air Brake System](#)
- [30.2.6: Air Brake Tests Using Gauge or End-of-Train Device](#)
- [30.2.6.1: Air Brake Tests Using Hand Held Gauges](#)
- [30.3: Initial Terminal Air Brake Test \(Class I Air Brake Test\)](#)
- [30.3.1: Initial Terminal Air Brake Test \(Class I\) Requirements](#)
- [30.3.2: Initial Terminal Air Brake Test \(Class I\) Procedure](#)
- [30.3.3: Initial Terminal Air Brake Test \(Class I\) Notification](#)
- [30.3.4: Cycle Trains](#)
- [30.3.5: Trains Designated as Extended Haul](#)
- [30.3.6: Attaching Locomotive to Cars Previously Class I Tested Using Yard Air or Other Locomotive](#)
- [30.4: 1,000 Mile Inspection Tests \(Class IA Brake Test\)](#)
- [30.4.1: 1,000 Mile Inspection Tests \(Class IA Brake Test\)](#)
- [30.5: Transfer Train Movement Air Test](#)
- [30.5.1: Transfer Train Movement Air Test](#)
- [30.6: Test When Cutting Off and Recoupling](#)
- [30.6.1: Test When Cutting Off and Recoupling](#)
- [30.7: Application and Release Test \(Class III Brake Test\)](#)
- [30.7.1: Application and Release Test \(Class III Brake Test\) Requirements](#)
- [30.8: Inbound Mechanical Inspection](#)
- [30.8.1: Inbound Train Inspection](#)
- [30.9: Train Information](#)
- [30.9.1: Train Information](#)
- [30.10: Air Brake Test and Inspection Charts/49 CFR 232](#)
- [30.10.1: Air Brake Test Requirements](#)
- [30.11: Air Brake Tests and Inspection Procedures](#)
- [30.11.1: Brake Inspection Requirements](#)

Union Pacific Rules

Air Brake and Train Handling Rules

34.0: Train Handling Chapter 34

- [34.0: Train Handling](#)
- [34.1: Train Handling Responsibilities](#)
- [34.2: Train Handling Guidelines](#)
- [34.2.1: Starting/Accelerating Train](#)
- [34.2.2: Slowing or Controlling Speed](#)
- [34.2.3: Slowing/Controlling Speed on Level or Descending Grade, with Dynamic Brakes, Slack Bunched](#)
- [34.2.4: Stretch Braking](#)
- [34.2.5: Ascending Grade](#)
- [34.2.6: Cresting Grade](#)
- [34.2.7: Undulating Grade](#)
- [34.2.8: Stopping](#)
- [34.2.9: Unplanned Stops](#)
- [34.2.10: Emergency Brake Applications](#)
- [34.2.11: Shoving Equipment](#)
- [34.2.12: Switching Movements](#)
- [34.2.13: Disturbed Track/Temporary Speed Restrictions/Heat Restrictions](#)
- [34.2.14: Thermal Misalignment](#)
- [34.3: Grade Operations](#)
- [34.3.1: Balance Braking](#)
- [34.3.2: Recharging on a Grade](#)
- [34.4: Delayed Departure](#)
- [34.5: Car Air Brakes](#)
- [34.5.1: Applying or Reapplying Automatic Brakes](#)
- [34.5.2: Releasing Brakes](#)
- [34.5.3: Unintentional Brake Release](#)
- [34.5.4: Regulating Valve Braking](#)
- [34.5.5: Retaining Valves](#)
- [34.5.6: Use of Automatic Brakes During Cold Weather Conditions](#)
- [34.6: Locomotive Operation](#)
- [34.6.1: Independent Brake \(Locomotive Brake\)](#)
- [34.6.2: Throttle and Reverser Positions](#)
- [34.6.3: Dynamic Braking](#)
- [34.6.4: Short Time Rating/Minimum Continuous Speed](#)
- [34.6.5: Penalty Brake Application](#)

34.0: Train Handling

34.0 Train Handling

Rule Updated Date

January 20, 2012

[^Top](#)

34.1: Train Handling Responsibilities

34.1	<p>Train Handling Responsibilities</p> <p>Crew members must exercise judgment and plan ahead to operate their train safely and efficiently. The engineer is responsible for properly controlling in-train forces. Proper train handling requires a combination of communication, throttle modulation, dynamic braking, and air braking to:</p> <ul style="list-style-type: none">• Prevent injury.• Prevent damage to the track structure, equipment and lading. <p>Controlling and limiting in-train forces are essential to safe train operation. Unless an emergency or other condition requires immediate speed reduction, make:</p> <ul style="list-style-type: none">• Throttle position changes one notch at a time.• Dynamic brake changes gradually.• Air brake applications to allow slack to adjust.
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Rule Updated Date

May 2, 2016

[^Top](#)

34.2: Train Handling Guidelines

34.2 <i>49 CFR 232.109</i>	<p>Train Handling Guidelines</p> <p>Train handling guidelines for starting, stopping, slowing, and controlling trains as well as unplanned stops.</p>
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Rule Updated Date

January 20, 2012

34.2.1: Starting/Accelerating Train

34.2.1	<p>Starting/Accelerating Train</p> <p>A. On level and ascending grade:</p> <ul style="list-style-type: none">• Advance the throttle to a position sufficient to hold the train when necessary and verify that DP consist(s) are loading.• Release the automatic brake.• Use the lowest throttle position possible to start the train. It may be necessary to limit starting acceleration by use of the independent brake.• Allow the locomotive load meter to stabilize before advancing the throttle to the next higher position.• Once the train is moving, do not increase the throttle until the locomotive load meter stabilizes.• To accelerate, advance the throttle slowly, one notch at a time to avoid excessive draft forces.• In curved territory, use only enough power to start the train to reduce the possibility of string-lining in curves because of excessive lateral forces.• Trains operating with cut-in helper and/or rear helper should have the helper throttle setting higher than the head end consist.• If the train will not start, reapply brakes, reduce throttle to idle, and determine the cause. Applying power on a standing DC locomotive longer than necessary will damage traction motors. <p>B. On descending grade:</p> <ol style="list-style-type: none">1. With the independent brake fully applied, activate the dynamic brake.2. Release the automatic brake and wait for all brakes to release and slack to adjust. On heavy descending grades the automatic brakes may remain applied.3. Trains with cut-in helper and/or rear helper should have the throttle setting in idle or low throttle setting if the entire train is on descending grade.4. Gradually reduce the independent brake until the train begins to move.5. Release the independent brake as the dynamic brake becomes effective.6. Adjust dynamic brake on head consist to allow train to accelerate and to accelerate and on cut-in and/or rear helper to control speed and in-train forces.
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Rule Updated Date

May 2, 2016



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[Union Pacific Rules](#)

UPRR - General Code of Operating Rules

Seventh Edition

Effective April 1, 2015

Includes Updates as of September 19, 2016

PB-20280

[1.0: GENERAL RESPONSIBILITIES](#)

[2.0: RAILROAD RADIO AND COMMUNICATION RULES](#)

[3.0: Section Reserved](#)

[4.0: TIMETABLES](#)

[5.0: SIGNALS AND THEIR USE](#)

[6.0: MOVEMENT OF TRAINS AND ENGINES](#)

[7.0: SWITCHING](#)

[8.0: SWITCHES](#)

[9.0: BLOCK SYSTEM RULES](#)

[10.0: RULES APPLICABLE ONLY IN CENTRALIZED TRAFFIC CONTROL \(CTC\)](#)

[11.0: RULES APPLICABLE IN ACS, ATC AND ATS TERRITORIES](#)

[12.0: RULES APPLICABLE ONLY IN AUTOMATIC TRAIN STOP SYSTEM \(ATS\) TERRITORY](#)

[13.0: RULES APPLICABLE ONLY IN AUTOMATIC CAB SIGNAL SYSTEM \(ACS\) TERRITORY](#)

[14.0: RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL \(TWC\) LIMITS](#)

[15.0: TRACK BULLETIN RULES](#)

[16.0: RULES APPLICABLE ONLY IN DIRECT TRAFFIC CONTROL \(DTC\) LIMITS](#)

[17.0: RULES APPLICABLE ONLY IN AUTOMATIC TRAIN CONTROL \(ATC\) TERRITORY](#)

[GLOSSARY: Glossary](#)

Application:

In ATC territory "within same signaled block" only applies where continuous block signal territory is designated.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.4.2: Movements Within Control Points or Interlockings**A. Control Points or Manual Interlockings****Control Points Outside Manual Interlockings.**

Except within track and time limits, if movement stops while the trailing end is between the outer opposing absolute signals of a control point, the movement must not change direction without permission from the control operator. However, after a job briefing has been conducted and the control operator has a clear understanding of all movements to be made and tracks to be used, the control operator may grant permission for all movements.

Manual Interlockings

If movement stops while the trailing end is between the outer opposing absolute signals of a manual interlocking, the movement must not change direction without permission from the control operator.

B. Automatic Interlockings

At an automatic interlocking, the train movement may change direction within the limits of the interlocking if it continuously occupies at least one car length of the limits.

Rule Updated Date

April 1, 2015

System Special Instructions

Effective Date: April 1, 2015

[^Top](#)

6.5: Shoving Movements

Equipment must not be shoved until the engineer and the employee protecting the movement have completed a job briefing concerning how protection will be provided. Employee must be in position, provide visual protection of the equipment being shoved and participating crewmembers must not engage in unrelated tasks while making a shoving movement.

When making a shoving movement, the employee protecting the movement must see the route is clear and:

- Be in a position to continuously observe the leading end of the equipment until it is stopped.
- or
- Walk adjacent to or ride the leading end of the equipment.

The employee protecting the shove must not turn their back on the movement or walk backwards ahead of the movement. Radio communications for shoving movements must specify the direction and distance and must be acknowledged when distance specified is more than four cars.

MOVEMENT MUST STOP WITHIN HALF THE DISTANCE SPECIFIED UNLESS ADDITIONAL INSTRUCTIONS ARE RECEIVED.

Equipment must not be shoved until it is visually determined that:

- Portion of track to be used is clear of equipment or conflicting movements.
- The track will remain clear to the location where movement will be stopped.
- Switches and derails are properly lined.

Employees may be relieved from providing visual protection when:

- Superintendent Bulletin specifies tracks that will be protected with shove lights or monitored cameras.
- Picking up a crew member in accordance with Rule 6.6 (Back Up Movements).

Shoving movements over road crossings must be made in accordance with Rule 6.32.1 (Providing Warning Over Road Crossings).

Speeds when Shoving

When cars are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.
- Maximum timetable speed for snow service unless the employee in charge authorizes a higher speed.

Application:

When not using hand signals, radio job briefing must include the following:

- Who will protect the shove.
- Which track is being shoved.
- How the shove will be protected.
- Distance and direction to be shoved.
- Position of switches and derails, if applicable.

Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

6.5.1: Remote Control Movements

Remote control movements are considered shoving movements, except when the remote control operator controlling the movement is riding the leading locomotive in the direction of movement. Before initiating movement, the remote control operator or a crew member must be in position to visually observe the direction the equipment moves.

When approaching within 200 feet of a fouling point, switch or derail, employee controlling the movement must be on the point of the movement outside the cab when riding the locomotive. However, movement may be controlled from inside the cab of the lead locomotive when:

- Operating in severe weather conditions.
or
- It is necessary to sound the whistle.

Relief of Providing Protection

The remote control operator is relieved from providing protection and the requirement to stop within half the range of vision for movements with engine on leading end when:

1. The remote control zone has been activated.
2. The remote control zone has been properly verified / swept to determine:
 - Switches / derails are known to be properly lined.
 - Track(s) within the zone are known to be clear of other trains, engines, railroad cars, and men or equipment fouling track.
and
 - Pull back / stop protection (PSP) is operational by traversing at least one puck and observing the activation on the OCU when equipped with PSP.

* Pull back and stop protection must again be verified if PSP is overridden or disabled.

Note: These steps must be repeated each time the remote control zone is activated.

When operating in pitch and catch mode and making a shoving movement, the primary operator must be in position to protect point of movement.

The primary operator at the coupling may stretch the slack to ensure couplings are made or separate equipment to make coupler adjustments after a job briefing with the employee who will be protecting the point.

Union Pacific Rules

Safety Rules

70.0: GENERAL SAFETY INSTRUCTIONS

Chapter Introduction

70.0 GENERAL SAFETY INSTRUCTIONS

- [70.0: GENERAL SAFETY INSTRUCTIONS](#)
- [70.1: Safety Responsibilities](#)
- [70.2: Comply With Instructions](#)
- [70.3: Job Briefing](#)
- [70.4: Removal of Unauthorized Persons](#)
- [70.5: Criminal Activity](#)
- [70.6: Lifting and Moving Material](#)
- [70.6.1: Lifting with Two or More Employees](#)
- [70.7: Protection of Body Parts](#)
- [70.8: Safety Around Machines and Equipment](#)
- [70.9: Door or Hatch](#)
- [70.10: Cabinets](#)
- [70.11: Office Equipment and Furniture](#)
- [70.12: Protruding Objects](#)
- [70.13: Energizing Machinery](#)
- [70.14: Damaged or Defective Machinery](#)
- [70.15: Compressed Air / Gas](#)
- [70.16: Drop or Throw Objects](#)
- [70.17: Rail Under Tension](#)
- [70.18: Fusees](#)
- [70.19: Air Contaminants](#)
- [70.20: Internal Combustion Engines](#)
- [70.21: Spills](#)
- [70.22: Skin Protection](#)
- [70.23: Hazard Communication Standard](#)
- [70.24: Drums and Containers](#)
- [70.25: Working with Refrigeration Systems](#)

[^Top](#)

70.3: Job Briefing

<p>70.3</p> <p><i>Ref. SRM Section R</i></p>	<p>Job Briefing</p> <p>A. Job Briefing Requirement</p> <p>Job briefing must be conducted:</p> <ul style="list-style-type: none">• With all individuals involved in the task before work begins.• If work plan or work group changes. <p>B. Conduct Job Briefing</p> <p>Job briefing must:</p> <ul style="list-style-type: none">• Consider existing and potential hazards that might be involved as a result of:<ul style="list-style-type: none">• Weather.• Scope of work.• Tools and equipment.• Identify PPE requirements.• Assign responsibility.• Explain group / individual assignments, while considering abilities and experience.• Be aware of work groups and equipment in work area.• Identify job location.• Verify understanding of instructions and assignments. <p>For complex jobs:</p> <ul style="list-style-type: none">• Brief only a portion of the job.• Conduct additional briefing(s) as the job progresses. <p>Complete and sign the job briefing document when applicable.</p>
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Rule Updated Date

July 2, 2013

[^Top](#)

70.4: Removal of Unauthorized Persons

FE-2017-04
UNION PACIFIC (UP)

PARTIAL TRANSCRIPTION OF RADIO TRANSMISSION

Dispatcher contacting the M SKHK 30 (CP 9769)
Wallula Junction, Ayer Subdivision, January 31, 2017, 0500 am PST

Dispatcher: Dispatcher 41 to the CP 9769, come in, over.

CP 9769: CP 9769, over.

Dispatcher: Hey (b) (6), (b) (7)(C) got a couple lights stacked up here for you, looks like you took the whole train in there for, what, a rear end pick-up or something, what do you need for lights from here on out? Over.

CP 9769: Ah... well, we're not going to need any lights, 'cause we did a rear end pick up

Dispatcher: Gotcha, I figured, no lights needed, alright. How long are you there at, how much longer? Rough guess. Over.

CP 9769: I don't know, I lost communication with my conductor, I have no idea what's going on.

Van Driver: Hello, hello, over. Hello? Over. Major accident man. The guy is lying down between the tracks. I think he's dead.

CP 9769: Dispatcher, we have an emergency at 213, we need an ambulance immediately.

Dispatcher: I'm on it, um, is that in the outbound track? Over.

CP 9769: Yes, over.

Dispatcher: Let me get 'em rolling, I'll be back for more info, I'll be back.

Dispatcher: (Dialing RMCC)

RMCC: Do you need an ambulance to respond?

Dispatcher: Yes, I do, in Wallula Washington, I got, uh, I don't have all the information yet, but I got a man between the rails, uh conductor says he thinks he's dead is the quote I got. I don't even have a mile pole yet, he's

in an outbound track off of the main line where they are doing a pick up/setout, again Wallula, Washington, it'd be real close to our depot in Wallula.

RMCC: Ok, I need, I need a partial mile post at least.

Dispatcher: 213 of the Ayer Subdivision

RMCC: Two hundred thirteen, Ayer

Dispatcher: sorry, 213 and a half, 213.5, you will find the train for sure there. 213.5 Ayer Subdivision.

RMCC: What train is it?

Dispatcher: M SKHK of the 30th, CP 9769

RMCC: Okay, so CP 9769 is on the lead?

Dispatcher: Correct.

RMCC: Okay, is the locomotive parked right there?

Dispatcher: Yeah, they're half-way off the main, they're, half the train is on the main, half of it's in the yard track and the body is in the yard, in the yard track. I'm not even 100% sure it's on the track they're on, but if you find them, the conductor is at the rear of the train, engineer is on the head of the train. They just asked me to get someone rolling immediately. I'm going to go back there and get all the details I can.

RMCC: ok

Dispatcher: Yeah, roll an ambulance and I'll get back to you with more. What's your name?

RMCC: This is (b) (6), (b) (7)(C). And what's your name?

Dispatcher: (b) (6), (b) (7)(C), callback (b) (6), (b) (7)(C)

RMCC: Alright, I'll get'em headed out there.

Dispatcher: Ok, thanks, man.

RMCC: Alright, bye.

Dispatcher: Dispatcher 41 to the CP 9769, over.

CP 9769: 9769, over.

Dispatcher: Ok, RMCC has been notified and they are going to roll authorities and ambulance so I'll need a little more info, I gave them mile pole 213 and a half is what I told them you were, this is in the outbound one of the yard tracks, outbound tracks whatever off the main line? Over

CP 9769: I do believe so, over, I had the crew shuttle driver go find him and he said he was lying next to the tracks and it looks like he is missing a leg.

Dispatcher: Ok, Let's stop, remain set to advise, don't move your train of course and let's hang out for a minute tell authorities and EMTs are on site. Everybody on the crew and the crew driver are healthy, correct? No issues there, over.

CP 9769: Well, it's the conductor, he's on the ground.

Dispatcher: Oh, it's our conductor that's on the ground.

CP 9769: Yes

Dispatcher: Ok, that changes everything, I thought it was, ok, It's our man on the ground with a serious injury. Over

CP 9769: I do believe so.

Dispatcher: And this info is coming from the crew driver? Over.

CP 9769: Yes

Dispatcher: Alright, I'll be back, alright 213 and a half is a good mile pole?

CP 9769: Yes

Dispatcher: (Dialing to RMCC)

RMCC: (Answers)

Dispatcher: I need (b) (6), (b) (7)(C) if available.

RMCC: This is (b) (6), (b) (7)(C).

Dispatcher: Hey man, update, it's one of ours, one of our conductors we believe. All this info is coming kinda mixed, the crew. The Engineer lost communications with the conductor, the engineer sent the van driver back

to find the conductor and found him um, between the tracks, missing a leg. So, it's one of our men. Just to update, as far as we know, this info is coming kind of between the crew driver, shuttle driver and the engineer to me, so.

RMCC:

Ok, (b)(6), (b)(7)(F), hang one second, I'm on the line.

Union Pacific Rules

Safety Rules

81.0: WORKING AROUND TRACKS OR BEING ON EQUIPMENT

- [81.0: Working Around Tracks or Being on Equipment](#)
- [81.1: Precautions Around Tracks and Moving Equipment](#)
- [81.1.1: Precautions Near Passing Trains or Equipment](#)
- [81.1.2: Signals for Movement](#)
- [81.1.3: Warning Traffic at Grade Crossings](#)
- [81.2: Crossing Tracks](#)
- [81.2.1: Walking Near or Crossing Track](#)
- [81.2.2: Sufficient Distance](#)
- [81.3: Safety Appliances](#)
- [81.4: Getting On or Off Equipment](#)
- [81.4.1: Standing Equipment](#)
- [81.4.2: Moving Equipment](#)
- [81.4.3: Loading and Unloading Luggage and Supplies](#)
- [81.5: Crossing Through or Fouling Equipment](#)
- [81.5.1: Crossing Through Standing Equipment](#)
- [81.5.2: Stepping from One Car to Another](#)
- [81.5.3: Moving Cars](#)
- [81.5.4: Understanding Between Crew Members Before Crossing Through or Fouling Equipment](#)
- [81.5.5: Trainline Power Cables](#)
- [81.6: Coupler and End Sill](#)
- [81.6.1: Placing Feet](#)
- [81.7: Riding Equipment](#)
- [81.7.1: Unexpected Movement](#)
- [81.7.2: Shiftable Lading](#)
- [81.7.3: Business Cars or Passenger Equipment](#)
- [81.7.4: Riding Locomotive Cranes and Work Equipment](#)
- [81.8: Close Clearances](#)
- [81.8.1: Avoiding Fouling Hazards](#)
- [81.8.2: Maintain Lookout](#)
- [81.8.3: Impaired Clearances](#)
- [81.9: Cars in Motion](#)
- [81.10: Moving Equipment in Locomotive, Car, or Maintenance of Way Repair Facilities](#)
- [81.10.1: Before Moving Equipment](#)
- [81.10.2: Using Mobile Equipment](#)

Rule Updated Date

July 2, 2013

[^Top](#)

81.7: Riding Equipment

<p>81.7</p>	<p>Riding Equipment</p> <p>1. Determine if You Should Ride</p> <p>Ride cars or equipment only when duties require and after determining you can do so safely.</p> <p>When determining whether cars or equipment should be ridden, employees must consider:</p> <ul style="list-style-type: none">• Alternatives such as repositioning locomotives to pull instead of shoving cars, repositioning of crew members or utilizing other employees to complete the task without having to ride moving equipment.• Weather conditions that may cause unsafe conditions to ride, e.g. ice storms.• Designs and configuration of cars that may make them unsuitable to ride.• Selecting or repositioning other cars to ride.• Your physical limitations.• Potential slack action.• Applicable Operating and Safety Rules. <p>2. Do Not Ride</p> <p>Employees must not ride:</p> <ul style="list-style-type: none">• On cars that are rolling free, except where a "Gravity Switch" has been authorized by a "Superintendent Bulletin" and then only when movement can be controlled by a hand brake located on the trailing end of the trailing car in the direction of movement (See Rule 7.7.1 Gravity Switch).• On the end of a moving car – except as provided in this rule.• While sitting on walkways, steps, or platforms of locomotives.• On equipment where track conditions can not be clearly observed because of debris, snow, ice, water, grain, sand or mud.• On sill step of cars (stirrup beneath ladder), engine steps, caboose steps or vestibule steps of cars when moving over a street or highway crossing, or yard access crossing.• On side ladders leading to engine cabs on full body type locomotives.• On tank cars if it can possibly be avoided and never on the side ladder providing access to top of tank car.• Inside equipment (i.e. hopper cars, gondola cars, etc.).
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- On any part of coupler apparatus, center sill, side sill, or end sill.
- In a location where you may be struck or pinched by moving lading or equipment.

3. How to Ride

When riding on equipment employees must:

- Maintain three-point contact with hands and feet on fixed platforms and/or grab irons designed for this purpose. Hand brake may not be used as one of the required points of contact.
- Look in the direction of movement.
- Ride on the side of the car, the vertical plane of the end of the car must not be broken; except:
 - May ride on the brake or end platform on the trailing end of the last car in direction of movement.
 - When allowed to ride on the deck of a flat car.
 - May ride on end platform of ARMN, JR SX cars equipped with an end platform and hand rails. The platform is located on the "A" end of the car.
- Only ride on cars equipped with two vertical hand holds or horizontal hand hold positioned to allow an erect body position.

4. Where to Ride

When riding on equipment employees must be positioned:

- When possible, while making a pulling movement, on the brake or end platform on the trailing end of the last car in direction of movement.
- On the side of leading end of equipment in direction of movement.
- On deck of empty flat car or on a TOFC/COFC flat car only if you can mount the car safely and kneel or sit as near as possible to the center of the car until the car as come to a complete stop. If equipped with two vertical hand holds or horizontal hand hold positioned to allow an erect body position may ride on side of car.
- When riding empty bulkhead or centerbeam flat car, employee may ride on the deck behind the bulkhead in the direction of movement and maintain three point contact while facing the direction of movement.

Riding tank cars:

Employees may only ride a tank car when the tank car is the first car of a shoving movement or the last car in a cut of cars being handled.

Employees must maintain three or four-point contact and:

- When shoving:
 - Be on leading end of leading car.
 - Be positioned to ride behind the safety bar outside the gage of the track. On cars equipped with two vertical handholds or if unable to ride behind the safety bar, employee may ride on the outer portion of the crossover platform facing direction of movement, positioned outside the gauge of the track.

	<ul style="list-style-type: none"> • Place both feet on the car to provide secure contact with the car. If unable to place both feet in a secure position, employee must not ride the car. • When pulling: <ul style="list-style-type: none"> • Be on the trailing end platform of the last car, facing the direction of movement. • Place both feet on the end platform to provide secure contact with the car.
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Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.7.1: Unexpected Movement

<p>81.7.1</p>	<p>Unexpected Movement</p> <p>When duties require moving around, inside, or on equipment, anticipate and protect yourself from sudden stops, starts, slack action or other movements and:</p> <ul style="list-style-type: none"> • Be adequately braced. • Maintain a firm hand hold. • Sit down quickly and safely. • Unless duties require otherwise, remain seated when stopping, entering and departing terminals. • Stay out of cars being or about to be switched and notify all occupants before switching cars. <p>When above normal vertical or lateral motion is detected on a locomotive, the train dispatcher must be notified. Engineer must reduce speed to a level that provides a normal ride.</p>
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Rule Updated Date

July 2, 2013

[^Top](#)

81.7.2: Shiftable Lading

<p>81.7.2</p>	<p>Shiftable Lading</p>
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	<ul style="list-style-type: none"> • Place the butt of the brake stick against your body. • Climb or cross equipment with the brake stick in your hand. • Use brake stick while in or on a vehicle. • Operate the hand brake quick release with a brake stick. <p>Local instructions may be issued regarding use of brake sticks.</p>
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Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.12: Wheel Chocks / Skate

81.12	<p>Wheel Chock / Skate</p> <p>Use wheel chocks or skates where required. When placing or removing wheel chocks or skates, keep body outside rail or place from outside the rails to avoid pinch points.</p>
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Rule Updated Date

July 2, 2013

[^Top](#)

81.13: Coupling and Uncoupling Equipment

81.13	<p>Coupling and Uncoupling Equipment</p> <p>Local instructions may be issued requiring:</p> <ul style="list-style-type: none"> • Movement to stop before coupling is made. • Employees riding locomotives to dismount prior to coupling. <p>When coupling or uncoupling:</p> <ul style="list-style-type: none"> • Stand in the clear.
<p><i>Ref. Rule(s)</i> 81.5.4</p>	

	<ul style="list-style-type: none"> • Ensure couplers are in proper alignment and knuckle is open before coupling. • Turn face away from connected air hoses while uncoupling. <p>Do not:</p> <ul style="list-style-type: none"> • Ride cars to coupling. • Use your feet to operate uncoupling lever. • Use excessive force or jerk on uncoupling lever. • Operate an uncoupling lever on a car or engine while riding on another car or engine. <p>Be alert for pinch points. Always place your hand on portion of uncoupling lever that is designed as the handle.</p> <p>Use the uncoupling lever to open knuckles when possible.</p> <p>If you must use hands to open the knuckle on standing equipment, avoid placing more than one foot between the rails when possible. During coupling operations, separate equipment at least 100 feet and stop equipment before reaching in. Make sure knuckle pin is in place before putting hand on the knuckle.</p>
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Rule Updated Date

May 2, 2016

System Special Instructions

Effective Date: May 2, 2016

[^Top](#)

81.13.1: Going between Cars

<p>81.13.1</p> <p><i>Ref. Rule(s)</i></p> <p>81.2.2</p> <p>81.5.4</p> <p>81.13.3</p>	<p>Working Between Equipment</p> <p>Do not go between, in front of or behind moving equipment to arrange knuckles, couplers or manipulate other appliances for any reason without sufficient distance.</p> <p>Before going between equipment to perform work:</p> <ul style="list-style-type: none"> • Allow slack to adjust. • On tracks where cars are likely to roll together, apply sufficient hand brakes, but not less than two, on unattached portion to prevent movement.
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Rule Updated Date



PORTLAND AREA TIMETABLE #6

Effective 0900C Monday, October 13, 2014

(b) (6), (b) (7)(C) Executive Vice President - Operations
(b) (6), (b) (7)(C) Vice President - Transportation
(b) (6), (b) (7)(C), Vice President - HDC & Network Operations
(b) (6), (b) (7)(C), Vice President - Northern Region
(b) (6), (b) (7)(C), Vice President - Southern Region
(b) (6), (b) (7)(C), Vice President - Western Region
(b) (6), (b) (7)(C), Vice President - Engineering
(b) (6), (b) (7)(C) Chief Mechanical Officer
(b) (6), (b) (7)(C) Vice President - Operating Systems & Practices
(b) (6), (b) (7)(C) Vice President - Safety & CSO

This document supersedes:

Union Pacific Railroad Portland Timetable 5 effective Nov 07, 2011

PORTLAND SUBDIVISION 0870

MP	Track	Route	CP	SOUTH	NORTH	Signal	Siding Feet
BN83.5	Yellow	TWC ABS	6.3	FISH LAKE (4.3)		OK174	
354.8				CHENEY (20.6)		OK169	4950
349.3				WELLS (21.9)		OK147	6746
329.8				MARENGO (22.6)	(M)!	OK125	10353
328.4				HOOPER JCT. (10.8)	(M)!	OK103	1845
307.9				JOSO (1.4)		OK092	6715
305.8							
285.3							
284.8							
274.5							
273.2	Red	CTC	6.3	CP E273 (HOLD SIGNAL) (3.4)			
273.1				AYER JCT. (2.1)		OK086	
B269.7				EQUATION B267.6 = 269.7 (0.3)			
B267.6 = 269.7				AYER (11.7)		OK082	11203
269.4				MATTHEWS (10.1)		OK072	9737
267.1				WALKER (9.9)		OK062	9736
257.7				PAGE (14.7)	!	OK052	9660
255.8				CP E223 (6.4)			
247.7				RA LEX (0.9)			
245.7				CP E216 (0.4)			
237.8	Red	CTC	6.3	WALLULA (1.9)		OK031	7640
235.9				WALLULA JCT. (9.4)		OK029	
223.1				JUN PER (10.0)	!	OK019	7357
216.7				COLD SPRINGS (9.0)	!	OK009	7406
215.8				N. HINKLE (0.2)			
215.4				CP E985 (0.7)			
213.5				HINKLE (0.7)	TB	OX591	Yard
204.1							
202.5							
194.1							
192.5							
185.1							
184.9							
184.2							

(172.6)

SI-01 MAIN TRACK AUTOMORIT

CTC between:

MP 273.1 and MP 269.4;
MP 237.8 and MP 184.2.

TWC/ABS between:

MP 354.8 and MP 273.1;
MP 269.4 and MP 237.8.

Operation on BNSF between Fish Lake MP 354.8 and BNSF Connection MP 2.5 Spokane Subdivision. Northward trains via Fish Lake must secure BNSF track warrant prior to departing Hinkle, and must contact BNSF Dispatcher on channel 076-076 when passing Cheney. Southward trains must secure BNSF track warrant prior to departing BNSF Connection.

SI-02 MAXIMUM SPEED TABLE

Milepost	Speed	MP
Between Mileposts 354.8 and 297.0		
(Except as Below)		60
354.8		30
354.8 and 352.8		45
351.6 and 351.5		35
352.0 N **		45+
350.4 N **		45+
328.5 S **		40+
308.9 and 305.8		50
305.8 and 305.6		45
Between Mileposts 297.0 and 220.0		
(Except as Below)		50
280.4 and 276.9		40
276.9 and 273.4		30
273.4 and 271.6		20
271.6 and 269.5		40
245.7 and 244.5		45
239.0 and 238.4		45
236.0 and 235.4		45
232.3 and 230.6		35
Between Mileposts 220.0 and 184.2		
(Except as Below)		60
220.0 and 215.6		45
215.6 and 213.3		20+
213.3 and 210.2		30
210.2 and 209.2		35
186.6 and 185.1		45
185.1 and 184.2		15

** Speed restriction will not apply when signal at speed restriction location displays CLEAR.

SI-03 OTHER SPEED RESTRICTIONS

Milepost	Speed	MP
1. Thru Sidings & Turnouts		
Marengo		15
2. Dual Control Switch Turnouts		
Ayer Jct		25
3. Misc. Speed Restrictions		
Hinkle Bypass Track		20
4. Key Trains - Crude Oil (No Exceptions.)		

SI-04 MAIN TRACK DESIGNATIONS - None.

SI-05 MILEPOST EQUATIONS

BNSF MP 83.5 = UPRR MP 354.8;
MP B267.64 = MP 269.69.

SI-06 RCL OPERATIONS

Remote Control Areas:

Hinkle Yard to MP 185.0.

Remote Control Zones:

Hinkle yard:
See Portland Subdivision for Remote Control Zone information and Portland Superintendent Bulletin for RCL operations detail.

SI-07 ITEM 13 TRAIN DEFECT DETECTORS

(#) 343.3	% B269.6	(#) 200.4
(#) 310.7	(#) 253.9	% 195.0
(#) 283.8	(#) 226.0	% 190.0
% 274.5	% 221.0	% 188.4
% 271.3	% 219.1	% 186.8

SI-08 RULES ITEMS
Rule 9.15: Is in effect at siding Marengo. MofW On-Track equipment must obtain a track permit to occupy this siding. A track permit will be issued to a train only when operating conditions require siding to be jointly occupied by a train and men or equipment.

SI-09 FRA EXCEPTED TRACKS - None.

SI-10 BUSINESS TRACKS

Traffic Name	MP	STA. #S
Croskey	333.5	OK151
Ankeny S.	292.7	OK111
Park S.	279.7	OK098
Ash	228.2	OK044
Sun Harbor	224.1	OK039
Wallula Heights N.	218.0	OK034
Mikami	185.7	. . .

SI-11 INDUSTRIAL LEADS
Riparia Industrial Lead: (0877)
 Off Ayer Subdivision at Ayer Jct., 10 miles eastward to Riparia.
 Milepost Equations:
 MP 0.0 (Great Northwest Railway) = MP B10.5.
 Mileposts are prefixed with the letter "B" Riparia to Ayer Jct.
 Maximum Gross Weight: 134 Tons.
 Maximum speed 20 MPH.
 Ruling Grade .30
 Trackage beyond MP B10.0 operated by Great Northwest Railway.

SI-12 TONNAGE RESTRICTIONS/TPO
Maximum Gross Weight:
 158 Tons between Hinkle and Wallula Jct;
 143 Tons between Wallula Jct. and Fish Lake.

SI-13 TRAIN MAKE-UP RESTRICTIONS
 Double stack container loads in excess of 18 feet 10 inches above top of rail and series TTQX multilevel cars (type M2Y, M3X and M3Y), BNSF 306000-306153 and GVSR 89000-89058, are prohibited between Wallula and Spokane.
 "EXCEPTIONS: Any High/Wide load that has a Protection Notice covering the movement through the area may be moved as cleared by the notice."
 No additional restrictions to system requirements.

SI-14 MISC. INSTRUCTIONS
Cheney: When northward Absolute signal at MP 350.4 displays a STOP indication, trains must contact UP Train Dispatcher and be governed by his instructions.
Hinkle: Amber rotating tri-radial lights are at fueling facilities between Main Trks. 1 & 2. When these lights are illuminated, it is an indication mechanical forces are fueling units. Trains approaching this area must move at restricted speed, sound whistle and be on the lookout for and protect against employees working in area.

Hinkle - Blue signals on main tracks:
 Locations:
 Track 1 at:
 MP 187.02 low stand east end;
 MP 186.0 high stand east end;
 MP 183.7 high stand west end.

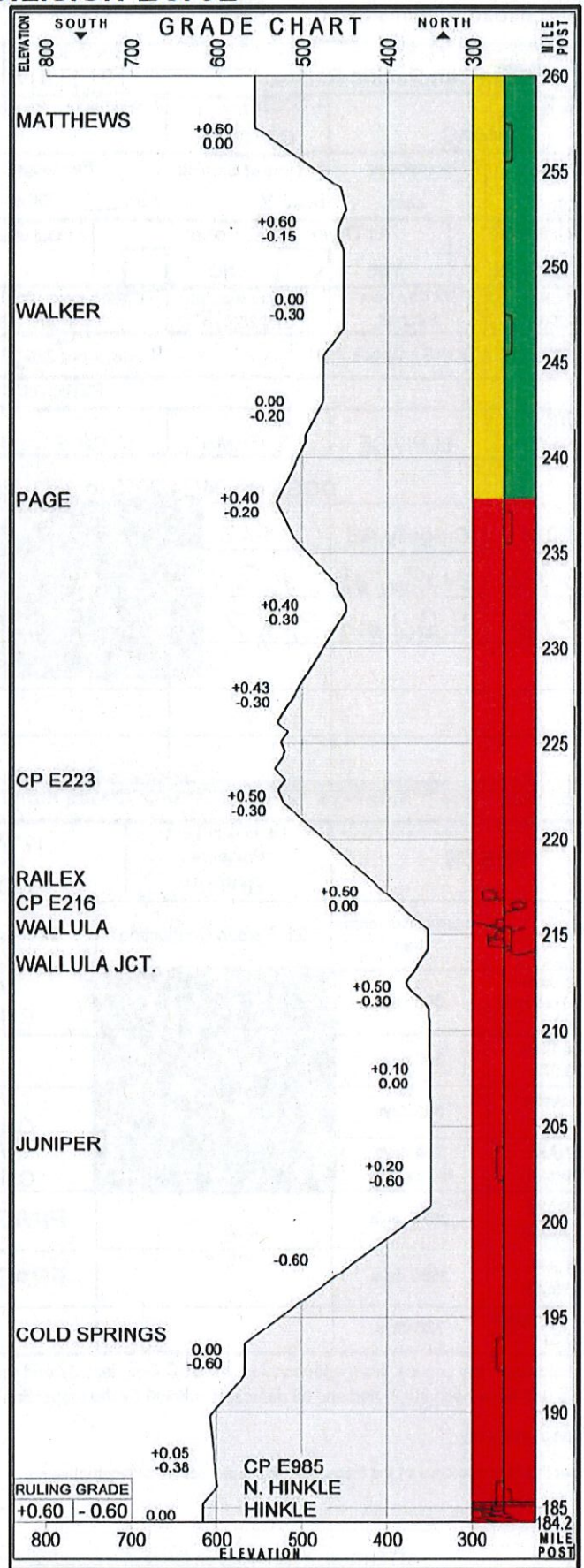
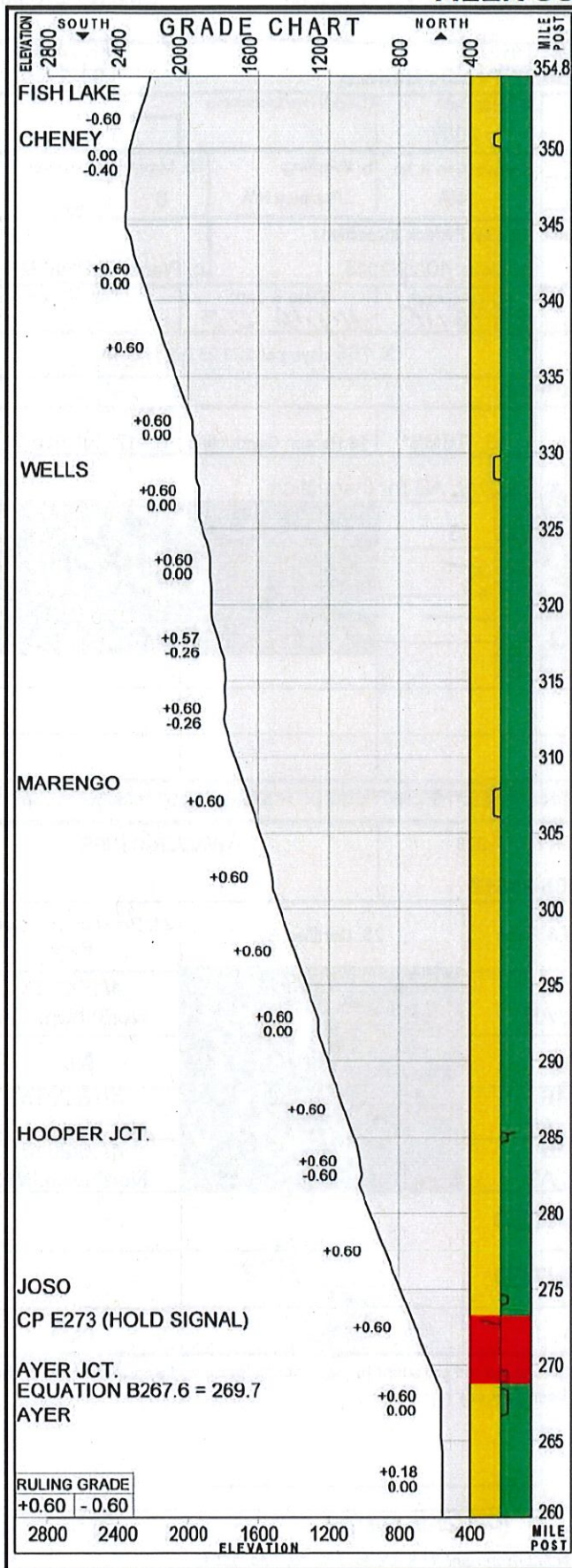
Track 2 at:
 MP 187.02 high stand east end;
 MP 186.0 high stand;
 MP 183.02 high stand west end.

Blue signals will be displayed when fueling and servicing inbound and outbound trains. Before moving to the fuel risers with a train ahead, crew members must check with the yardmaster to determine if blue signals are displayed. If blue signals are displayed, train must stop short of blue signal.

Hinkle - Engine Servicing Facility:
 A remotely controlled derail is located on the inbound servicing lead (Suicide) at milepost 185.6. A safety stop sign is located 50 feet in advance of the derail. Stop must be made before movement passes the safety stop sign and not proceed until a crew member has visually determined that the derail is in the non-derailing position. Do not rely on flashing light or sign to determine derail position.

Sequent				
MP	Name	Type	Action/Direction	Length
236.2 236.0	Pass	Signal	Stop	1040
266.0 266.1	Platform	Signal	Stop	1440
266.6	Ayer Doc Tr	Signal	Stop	100
266.1	Co. of Ayer	Signal	Stop	300
266.2	No. of Ayer	Signal	North	60
262.0	Area	Signal	Stop	1220
306.1 306.3	Area	Signal	Stop	60
333.0	Prote	Signal	North	1034
300.0	Area	Signal	North	60

AYER SUBDIVISION 0870





Year: 2016	1. OPERATED BY: Canadian Pacific Railway	RR CODE 0 1 0 5	2. OWNED BY: Canadian Pacific Railway	RR CODE 0 1 0 5
3. MODEL NO. ES44AC	4. LOCO. NO. CP 8852	If renumbered, Prev No.	5. Year Built 2007	Check If New Locomotive
6. Propelled By: DE	7. Horsepower 4400	8. Type of Service: Road X Passenger <input type="checkbox"/> Yard <input type="checkbox"/> Other <input type="checkbox"/>	9. Steam Gen. a. No. N/A	b. Working Pressure N/A
10. Max Piston Travel 8 inches	11. Out of use Credit: <input type="checkbox"/>		12. Last Periodic Inspection: a. Date: 10/22/2015 b. Place: St Paul, MN	
Type of Air Brake: NYAB CCBII	Air Dryer: Check one: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>			
AFM CAL 229-29(b)	92 day max Interval	Previous date: 01/22/2016	Date & cert: 05/01/2016 Calgary, AB	Date & cert: 08/16/15
PERIODIC INSPECTIONS: Check one:		92 days per 229.23 (a)	X 184 days per 229.23 (b)(1) <u>only</u>	

PERIODIC INSPECTIONS						
13. DATE Month/Day/Year	14. PLACE	15. ITEMS*	16. Person Conducting	15. ITEMS*	16. Person Conducting	17. Certified By
OOS from 04/24/2016 to 05/01/2016 at Calgary, AB for inspection						
5/1/2016	Calgary, AB	1-4,7	(b) (6), (b) (7)(C)	5	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)
10-1-16	St Paul MN	1,3	(b) (6), (b) (7)(C)	5	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)
11-1-16	St Paul MN	2,4,7	(b) (6), (b) (7)(C)	5	(b) (6), (b) (7)(C)	(b) (6), (b) (7)(C)

15. Item Code: 1-Brake 2-Running Gear 3-Cab Equip 4-Mach Equip 5-Elect Equip 6-Steam Gen 7-Safety Appl						
TESTS		18. H & H Test Pressure Drilled	19. WAIVER PART-229 FRA 2005-21613	20. WAIVER-OTHER		
TYPE	Interval Not more than:	21. Person Conducting	22. Test Date & Place	23. Certified By	24. Previous Test Date & Place	
Event Recorder 229.25 (d) or 229.27 (c)	368 days	(b) (6), (b) (7)(C)	5/1/2016 Calgary, AB	(b) (6), (b) (7)(C)	4/16/2015 Northtown, MN	
Annual Tests 229.27	368 days		N/A		N/A	
Hand Brake 232.105 (c)	368 days		5/1/2016 Calgary, AB		4/16/2015 Northtown, MN	
AIRBRAKE 229.29(c)(1)	368 days filters only		5/1/2016 Calgary, AB		4/16/2015 Northtown, MN	
AIRBRAKE 229.29(c)(2)	2576 days		FRAGMENTED			
AIRBRAKE 229.29(c)(3)	3680 days		FRAGMENTED			
Hammer and Hydro 229.31	736 days		N/A		N/A	

In accordance with the Locomotive Inspection Act, 49 USC Chapter 207 and the regulations issued pursuant to that Act, the parts and appurtenances of the locomotive unit have been inspected and all defects disclosed by the inspection have been properly repaired.

Certification of true copy:
I certify that this is a true copy of the inspection and repair record of locomotive no. _____

(Officer-in-charge) DATE

ATTENTION: A false entry on this form is punishable by fine or imprisonment (U.S. Code, Title 18, Sec. 1001).
FORM FRA F6180-49 A (11/2012) Government property do not remove. OMB Approval expires 11/30/2015