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# Federal Railroad Administration

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Content-type: text/html

FROM FORM FRA F 6180.55A

CASUALTY RECORD			
<b>RAILROAD:</b>	Union Pacific RR Co. [UP ]	<b>INCIDENT NUMBER:</b>	0117PD043
<b>DATE:</b>	01 /31 /2017	<b>TIME:</b>	5:00AM
<b>STATE:</b>	Washington	<b>COUNTY:</b>	WALLA WALLA
<b>TYPE PERSON:</b>	Worker on duty - employee	<b>AGE:</b>	54
<b>EMPLOYEE JOB:</b>	Road freight conductors (through freight)		
<b>INJURY:</b>	Fatality		

<b>EMPLOYEES TESTED FOR ALCOHOL USE:</b>	NONE REPORTED
<b>NUMBER OF POSITIVE TESTS:</b>	
<b>EMPLOYEES TESTED FOR DRUG USE:</b>	NONE REPORTED
<b>NUMBER OF POSITIVE TESTS:</b>	
<b>EMPLOYEE TERMINATION/PERMANENT TRANSFER:</b>	NO
<b>EXPOSURE TO HAZARDOUS MATERIAL:</b>	NO
<b>FRA FORM 6180-54 FILED:</b>	NO
<b>FRA FORM 6180-57 FILED:</b>	NO

CIRCUMSTANCES	
<b>PHYSICAL ACT:</b>	Riding
<b>EVENT:</b>	Struck by on-track equipment
<b>RESULT:</b>	Step/stirrup
<b>CAUSE:</b>	Undetermined
LOCATION	
<b>SITE:</b>	Yard
<b>ON TRK EQP:</b>	Freight train - moving
<b>WHERE:</b>	Between tracks
<b>NARRATIVE</b>	



U.S. Department  
of Transportation

**Federal Railroad  
Administration**

# Memorandum

**Date:** May 18, 2017

Reply to Attn. of: FE-2017-04

**Subject:** FE Investigation Report

**From:** Mark S. Daniels, Regional Administrator, Region 8  
Vancouver, Washington

mark.daniels  
@dot.gov

Digitally signed by  
mark.daniels@dot.gov  
DN: cn=mark.daniels@dot.gov  
Date: 2017.05.22 19:07:55 -07'00'

**To:** Michele Geary, Accident Investigation and Analysis Branch Team Leader

Attached for your review and further handling is an employee fatality investigation report FE-2017-04. The UP employee fatality occurred on January 31, 2017 on the UP Ayer Subdivision, in Wallula, Washington.

The Federal Railroad Administration's investigation determined that on January 31, 2017 at approximately 5:00 a.m., the UP employee, (a conductor) was fatally injured when he fell from the car he was riding while protecting a shove move.

I have read this investigation report and concur with the findings of the IIC investigation team.



# Memorandum

U.S. Department  
of Transportation

**Federal Railroad  
Administration**

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**Date:** May 18, 2017

Reply to Attn. of: FE-2017-04

**Subject:** FE Investigation Report  
Union Pacific Railroad (UP)  
Ayer Subdivision, Wallula, WA

**From:** Kevin H. Pannell Railroad Safety Inspector (OP), Region 8  
Pasco, Washington

**To:** Mark S. Daniels, Regional Administrator, Region 8  
Vancouver, Washington

Attached for your review and further handling is a fatality investigation report FE-2017-04. This is a report of a fatality involving a UP Conductor which occurred on January 31, 2017, on railroad property in the UP Wallula Yard. Wallula Yard is located on the Ayer Subdivision on the Portland Division.

The Federal Railroad Administration's investigation determined that on January 31, 2017 at approximately 5:00 a.m., the UP employee, (a conductor) was fatally injured when he fell from the car he was riding while protecting a shove movement.

The Walla Walla County Coroner Report listed Blunt Force Trauma as the cause of death.

This accident occurred without any eyewitnesses. Available evidence suggests it is likely that the conductor rode the center beam flat car to protect the shove move and at some point fell from the equipment landing within the gage of the rail and received blunt force fatal injuries as the equipment moved over him. How or where he rode on the car could not be determined.

**REPORT:** FE-2017-04  
**RAILROAD:** Union Pacific Railroad (UP)  
**LOCATION:** UP Wallula Yard, Ayer Subdivision, Wallula, Washington  
**DAY, DATE, TIME:** Tuesday, January 31, 2017, 5:00 a.m., PST  
**EVENT:** Other  
**PROBABLE CAUSE:** Employee fell and was struck by moving equipment while protecting a shove movement.

**EMPLOYEE:**

Occupation.....Conductor  
Activity.....Adding rail cars to train  
Age.....54  
Length of Service.....12 years, 6 months  
Last Rules Training.....June 4, 2015  
Last Safety Training.....May 15, 2016  
Last Physical Examination.....May 2015

**Circumstances prior to the Incident**

A two-person crew consisting of an engineer and conductor were called on duty at 8:42 p.m. on January 30, 2017, for southbound Train M SKHK 30 at Spokane, Washington. Spokane is the home terminal for both crew members and both had received more than the statutory off-duty period prior to reporting for duty. Both crew members were qualified on this territory and had worked this location for over 10 years.

Union Pacific Railroad's (UP) mixed freight train consisted of 2 locomotives (CP 9769 and CP 8852) located on the head-end of the train 29 loaded rail cars, and 32 empty rail cars. It was 4,713 feet in length and weighed 4,896 tons.

The train was operating on single main track in traffic control system territory at the time of the incident. The railroad timetable direction of the train was south. The geographical direction corresponds to timetable direction.

In this area, the track is tangent with an ascending grade of 0.34 percent, which transitions to a slightly descending grade at the south-end of the Wallula Yard. There are no grade crossings in the vicinity.

State Highway 12 runs parallel to the tracks and is approximately 275 feet east of the main track. At the time of the incident, it was dark and overcast, with calm winds and light falling snow. The temperature was 31°F. The ground was covered in snow, approximately 1-inch deep.

## **The Incident**

At approximately 4:30 a.m., the train arrived at Wallula Station, which is at Milepost (MP) 215 on the Ayer Subdivision. The Conductor went into the office to retrieve paperwork and held a job briefing with the Engineer. The crew's paperwork indicated a pick-up of 24 cars located on Track No. 111 on the south-end of Wallula Yard. The Conductor made the decision to make a rear-end pick-up of the cars instead of detaching the locomotives and making the pick-up on the head-end. The train then proceeded to the south-end of Wallula Yard to make the 24-car pick-up.

At approximately 4:41 a.m., the train arrived at the south-end of Wallula Yard. The Conductor got off the train at the derail and switch and directed the Engineer to pull ahead to clear Control Point (CPE) 213 located at MP 213.51 with the entire train, consisting of two locomotives and 61 rail cars.

Once the train cleared CPE 213, the Conductor lined the switch for Track No. 111. After lining up the move, the Conductor walked to the rear of the train, which was positioned south of the northbound control signal at CPE 213. The Engineer stated that the Conductor notified the Engineer that he had verified the signal and would be riding the shove on UP Car 274206, and gave the Engineer instructions to make a reverse move (northbound) of 18 car-lengths to a stop, via radio transmission. The Conductor continued giving updated movement instructions to the Engineer. The Engineer stated the last transmission from the Conductor was instruction for two cars. He stated he did not hear anything else from the Conductor and he stopped the movement and attempted to contact the Conductor via radio. After getting no response from the Conductor, the Engineer radioed the Professional Transportation Inc. (PTI) Driver who was on location and requested that he check on the Conductor. At 5:00 a.m., the Dispatcher contacted the train and asked for an update. While the Engineer was speaking with the Dispatcher, the Van Driver interrupted the conversation and notified them that the Conductor was down and had been struck by the train. The Dispatcher then directed emergency responders to the location.

Personnel from the Walla Walla County Sheriff's Office and Walla Walla County's District 5 EMS team responded to the scene.

The Walla Walla County Coroner arrived on the scene at 7:00 a.m. and pronounced the Conductor dead.

## **Post-Incident Investigation**

The decedent was found between the rails approximately 40 feet north of the Track No. 111 switch, underneath the center of Car No. TTGX 971982, the fourth car from the rear of the train.

Approximately 288 feet of the train traveled over the decedent causing traumatic injuries, which resulted in the death of the Conductor. The official cause of death is blunt force trauma per the Walla Walla County Coroner's Office.

According to UP officials, the shoving move which the crew was making was done in accordance with railroad safety rules and procedures. While the shoving move was permissible per railroad operating rules, it was not determined why the decedent chose to make the pick up on the rear of the train. The Manager of Train Operations stated that a head-end pickup would normally be the procedure used for this type of move. The Federal Railroad Administration (FRA) verified that the intended pickup of 24 cars was a mix of loaded and empty cars and could have been placed on the head-end of the train.

UP Railroad Safety Rule 81.7(4) allows a person riding this type of car to ride on the side of a car using the stirrup and vertical hand holds or to ride on the deck of this type of car behind the bulkhead. Employees may also choose to protect a shoving move from the ground.

An FRA Mechanical inspector performed an inspection on Rail Car UP 274206, which the decedent was riding, and found no defects which could have contributed to the incident.

The locomotive event recorder downloads obtained by FRA reveal that the train's speed did not exceed 6 mph and the total distance of the reverse move was 920 feet. The Engineer controlled the shove move using throttle modulation, dynamic braking and a varying amount of automatic/train-line air braking.

FRA Post-Accident Toxicological Testing was conducted for both the decedent and Engineer, and results for both employees were Post-Accident Tested were negative for alcohol and drugs.

### **Analysis and Conclusions**

Analysis - FRA Post Accident Toxicology Testing: The accident met the criteria for FRA Post-Accident Toxicology testing, as required under Title 49 Code of Federal Regulations, Part 219, Subpart C and testing was performed on both the decedent and Engineer.

Conclusion: Results of toxicological testing of the decedent and the Engineer were negative for alcohol and drugs.

Analysis – Mechanical Inspection: FRA conducted an inspection of the rail car on which the decedent was riding.

Conclusion: An inspection of Rail Car UP 274206, which the decedent was riding, was performed by an FRA MP&E Inspector and was found to have no defects which could have contributed to the incident. To further support the evidence, human tissue was observed by the Portland Service Unit General Superintendent on the L-1 wheel of the first car, Car No. UP 274206.

Analysis – Train Handling: Analysis of locomotive event recorder downloads of both locomotives from the incident train reveal the Engineer used throttle modulation, dynamic braking, and varying automatic/train-line air brake application to control the train. Center beam rail cars have greater travel in the couplers than typical rail cars.



Conclusion: FRA analysis of the control inputs indicate that this combination of train handling techniques likely produced amplification of draft and buff forces (slack action) in the train. It cannot be determined the effect of this action played a role in the fatality as it's unknown exactly where the decedent was riding.

Analysis – Locomotive Event Recorder Download: UP had difficulty obtaining a locomotive event recorder download from both locomotives. Canadian Pacific Railway (CP) locomotive event recorders have a data port that is unique to their locomotives. UP initially asked CP to download the event recorders, but then found a UP manager that possessed an event recorder adapter to retrieve the download.

FRA obtained the locomotive event recorder downloads from both the lead and trailing locomotive of the incident train. The lead locomotive, Locomotive No. CP 9769, was equipped with a Quads recording system. The trailing locomotive, Locomotive No. CP 8852, was equipped with a Wabtec recording system. Both downloads were analyzed by FRA. A visual review of the locomotive event recorder downloads indicated the combination of control inputs the Engineer used likely produced amplified slack action. FRA attempted to upload the data to an FRA train event simulator to analyze the in-train forces and Engineer's performance. The data formatting for the foreign locomotives was incompatible with FRA software and the simulator analysis was unsuccessful.

Conclusion: FRA was unable to determine the role played by slack action in the train corresponding with the Engineer's control inputs.

Analysis – Review of Railroad Rules: FRA reviewed UP operating rules, safety rules, and air brake and train handling rules associated with the fatal accident at Wallula.

Conclusion: UP is signatory to the General Code of Operating Rules (GCOR). The operating rule applicable to this type of train movement is GCOR 6.5 Shoving Movements. The rule states that "Movement must stop within half of the distance specified unless additional instructions are received." The Engineer stated that he stopped the movement after failing to receive additional instructions beyond the Conductor's last transmission of two cars. However, the decedent was found 288 feet from the leading end of the movement under the fourth car from the rear of the train. The radio communication between the crew members cannot be verified because the channel they used was not recorded. The safety rule applicable to this type of train movement is UP Safety Rule 81.7, which outlines when employees may ride a rail car, how to ride, and where to ride. Though a determination was made that the leading or point car of the shove move struck the decedent, FRA was not able to definitively determine where or how the employee rode the lead car.

Analysis – Accident Scene: FRA arrived at the accident scene more than 4 hours after the incident occurred. Markings in the snow indicate the Conductor fell within the gage of the rail and was struck by the equipment. There were no visible footprints between the rails prior to that point. The area outside the gage of the rail was covered with footprints and markings from the rescue efforts and railroad officials investigating the accident.

Conclusion: Scene contamination prevented FRA from ruling out the possibility that the employee walked outside the gage of the rail and then fouled the track and was struck. The Engineer's statement, combined with available physical evidence suggests it is likely the employee was riding the equipment and fell within the gage of the rail. FRA was unable to determine where or how the employee rode the equipment.

Analysis- PTI Van Driver: The PTI Van Driver assisting the train crew was interviewed by FRA.

Conclusion: The PTI Van Driver did not see or hear anything related to the incident.

Analysis -Train Car Ergonomics: The decedent is thought to have ridden the lead car to protect the shove movement. This car was a center beam flat car. Due to the design of this car, the vertical handholds are not symmetrically aligned with the foot stirrup and the handholds are slightly off-center from the foot stirrup.

Conclusion: The slightly off-center design of the car requires a rider to lean slightly rather than maintain a more natural vertical stance.

Analysis - Crew Fatigue: FRA obtained fatigue-related information for the members of the train crew for the 10-day period preceding the accident.

Conclusion: Upon analysis of that information with FRA's Fatigue Analysis Scheduling Tool program, FRA concluded that fatigue was probable for both crew members and that the employees may have been working at a diminished level of safety (effectiveness) due to mental and/or physical attributes associated with fatigue. Although fatigue was probable for both the Engineer and decedent Conductor, it was not possible to determine if it was a contributing factor.

## **Overall Conclusion**

This accident occurred without any eyewitnesses and how or where he rode on the car could not be determined. Available evidence suggests it is likely the decedent rode the center beam flat car to protect the shove move and, at some point, fell from the equipment, landed within the gage of the rail and sustained blunt force fatal injuries as the equipment moved over him.

## **APPLICABLE RULES**

### **GENERAL CODE OF OPERATING RULES:**

#### *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.

## UNION PACIFIC SAFETY RULES:

### 70.3 Job Briefing

#### A. Job Briefing Requirement

Job briefing must be conducted:

- With all individuals involved in the task before work begins.
- If work plan or work group changes.

#### B. Conduct Job Briefing

Job briefing must:

- Consider existing and potential hazards that might be involved as a result of:
  - Weather.
  - Scope of work.
  - Tools and equipment.
- Complete and sign the job briefing document when applicable.
- 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. For complex jobs:
- Brief only a portion of the job.
- Conduct additional briefing(s) as the job progresses.

### 81.7 Riding Equipment

#### 1. Determine if You Should Ride

Ride cars or equipment only when duties require and after determining you can do so safely.

When determining whether cars or equipment should be ridden, employees must consider:

- 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.

#### 2. Do Not Ride

Employees must not ride:

- 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 cannot 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.)
- 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, JRSX 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.

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.
- 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:
  - 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.

#### *81.7.1: Unexpected Movement*

When duties require moving around, inside, or on equipment, anticipate and protect yourself from sudden stops, starts, slack action or other movements and:

- 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.

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.

### UNION PACIFIC AIR BRAKE AND TRAIN HANDLING RULES:

#### 34.1 Train Handling Responsibilities:

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:

- Prevent injury.
- Prevent damage to the track structure, equipment and lading.

Controlling and limiting in-train forces are essential to safe train operation. Unless an emergency or other condition requires immediate speed reduction, make:

- Throttle position changes one notch at a time.
- Dynamic brake changes gradually.
- Air brake applications to allow slack to adjust.

#### 34.2.1: Starting/Accelerating Train

##### A. On level and ascending grade:

- 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.

B. On descending grade:

- With the independent brake fully applied, activate the dynamic brake.
- 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.
- 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.
- Gradually reduce the independent brake until the train begins to move.
- Release the independent brake as the dynamic brake becomes effective.
- 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.

## List of Attachments

Report No. FE-2017-04

### **1. Memos**

- RA Memo
- IIC Memo
- FE Report
- List of Attachments
- A1 Job Aid-11 Fatality Investigation Checklist
- SOFA Job Aid #12

### **2. Special Human Factors Reports:**

- 30 Day Work History Conductor
- 30 Day Work History Engineer
- FAST Data Conductor
- FAST Data Engineer
- Fatigue Analysis Conductor
- Fatigue Analysis Engineer
- Toxicology Test Results
- Training and Testing Records for Conductor
- Training and Testing Records for Engineer

### **3. Train Operating Information:**

- CP 8852 Event Recorder Graph
- CP 8852 Event Recorder Table
- CP 9769 Event Recorder Data
- CP 9769 Event Recorder Graph
- M SKHK 30 Train Consist
- M SKHK 30 Train List
- M SKHK 30 Train Workorder
- Union Pacific ABTH Rule 34.1 – 34.2.1
- Union Pacific GCOR Rule 6.5 Shoving Movements
- Union Pacific General Safety Job Briefing Rule 70.3
- Union Pacific Radio Transcripts Wallula 1-31-2017
- Union Pacific Safety Rule 81.7 – 81.7.1
- Union Pacific Time Table, Ayer Subdivision

### **4. Train Mechanical Information:**

- CP 8852 Blue Card
- CP 9769 Blue Card

### **5. Track, Structures and S&TC Information:**

- Union Pacific Track Chart



**6. Highway & Highway Vehicle Information:**

- This Folder left Intentionally Blank (This folder is non-applicable and/or not relevant to this accident investigation).

**7. Reports of Interview**

- PTI Contract Van driver Report of Interview.
- Union Pacific Engineer Report of Interview.
- Union Pacific MTO Report of Interview.

**8. Corresponding Reports:**

- FRA 39i Fatality Report.
- FRA Form 6180.55a Amended.
- FRA Form 6180.98 Amended.
- MP&E Inspection Report.
- OP Inspection Reports.
- UP Incident Report.

**9. Reports from Public Entities:**

- Autopsy Report.
- News Report FE-2017-04.
- News Report January 31, 2017.
- News Report The Spokesman Review.
- Obituary
- Walla Walla County Sheriff Case Report #2017-00000767.

**10. Photos and Maps:**

- Digital Photograph 01 FE-2017-04
- Digital Photograph 02 FE-2017-04
- Digital Photograph 03 FE-2017-04
- Digital Photograph 04 FE-2017-04
- Digital Photograph 05 FE-2017-04
- Digital Photograph 06 FE-2017-04
- Digital Photograph 06.1 FE-2017-04
- Wallula Sketch FE-2017-04

**11. Miscellaneous:**

- Weather Report

**12. Other**

- This folder left intentionally blank (This folder is non-applicable and/or not relevant to this accident investigation).

## AI Job Aid 11 - Fatality Investigation Checklist

This checklist is intended to serve as an aid for fatality investigations for which the cause is not clear (heart failure, etc.). Most fatality investigations are critical to FRA's overall understanding of the culture of a railroad or a railroad facility. Thus, it is critical to conduct as thorough of an investigation as possible.

Because of the limited scope of this job aid, it is impossible to cite all of the duties associated to Human Factor type investigations. However, it does attempt to cover the main items that should be addressed on this type of investigation.

- Completed:** Evaluate all applicable rules or standards, and ascertain whether or not there are conflicts among them. Determine if the applicable rules are clear and unambiguous.
- Completed:** Analyze all applicable Railroad Operational or Safety Tests data; and find out if the railroad or company requires job briefings. If job briefings are required, give the details, including whether or not the requirements are followed.
- N/A:** Conduct several interviews (six or so) with people assigned to the facility. Ascertain whether rules compliance is required, or if shortcuts are common and encouraged.
- N/A:** If the location is an industrial facility, do OSHA and/or State rules apply? If so, is OSHA or the PUC going to cite these rules as causal?
- N/A:** Make both a checklist for the particular facility and a task listing for the person who was fatally injured. These lists will vary for different types of facilities (railroad yards/property; industrial facility) and person fatally injured. Note: A task listing details all of the duties a person was performing prior and up to the time the fatal incident occurred.
- Completed:** Evaluate any risks involving loss of situational awareness that could have jeopardized the employee's safety during the performance of their assigned tasks.
- Completed:** If FRA rules are involved, the investigation must be very complete. You must conduct a significant number of comprehensive interviews with employees of that facility.
- N/A:** If roadway worker fatality, create a timeline of events leading up to the fatality and obtain any wayside event recorder data if available.

**AI Job Aid 12 – SOFA Appendix G**

Selected questions from SOFA Findings and Recommendations of the SOFA Working Group report (Appendix G) dated October 1999.

What personal protective equipment (PPE) was the fatally injured employee required to wear? YES  
Type: Footwear, hand protection, safety visibility vest.

Was the protection in use? YES  
Type: Wearing footwear with ice/snow cleats attached, gloves and safety visibility vest.

Was clothing, footwear, or PPE equipment contributory to the accident/incident? If so, explain. NO

Engineer yrs. railroad experience: 18 years, 2 months

Engineer yrs. craft experience: 13 years

Conductor yrs. railroad experience  
12 years, 6 months

Conductor yrs. craft experience  
12 years, 6 months

Brakeman yrs. railroad experience  
N/A

Brakeman yrs. craft experience  
N/A

Switchman yrs. railroad experience  
N/A

Switchman yrs. craft experience  
N/A

Number of crew members on ground  
One, the conductor

Number of ground crew actually involved in the move  
One, the conductor

**FE Crew Activity**

- FE crew's anticipated next move  
Type: Make a coupling
  
- External or unusual circumstances  
N/A
  
- Was another crew involved in the incident?  
NO
  
- Engine crew composition N/A  
Comment: Indicate the number of each crew type.
  
- Train crew composition N/A  
Comment: Indicate the number of each crew type.
  
- Number of crewmembers on ground N/A
  
- Number of ground crew actually involved in the move N/A
  
- Experience of other relevant employees N/A
  
- Yardmaster years railroad experience N/A
  
- Yardmaster years craft experience N/A
  
- Dispatcher years railroad experience N/A
  
- Dispatcher years craft experience N/A
  
- Was employee struck by own crew's equipment or that of another crew? Own train.
  
- What was the nature of the movement?  
Type: Shoving move
  
- Where on the locomotive/equipment was the FE riding?  
Type: Rear car.
  
- Were there other movements in the immediate area on same track? NO
  
- Were there other movements in the immediate area on adjacent tracks? NO

- Was locomotive/equipment operating in accordance with rules? YES

### Communications Issues

- Type of signaling in use  
Type: Radio
- Type of radio used  
Type: Handset
- Was the radio used when hand signals could have been used instead? No, Hand signals could not have been used.
- Were radio communications involved in the accident? NO Was the radio communication recorded and is a copy or transcript of the radio communications available? Yes, after the incident not during.
- Did the employees know which moves were to be made by radio communication? YES
- Did the employees understand that while using the radio, the engineer will not accept any hand signals, unless it is a stop signal? YES
- Were specific instructions given for each movement? YES
- Did the employees respond to those specific instructions? YES
- Was there a mixture of hand and radio signals used? NO
- If the movement involved backing or shoving, did the radio communication specify the direction and distance? YES
- Was the direction and distance acknowledged if that distance was more than four car lengths?  
Unkown
- Did the employee continue to proceed, though acknowledgment was not received? NO
- Was proper identification a factor in the incident? NO
- Did employees act on an incomplete or misunderstood radio communication? NO
- Was the movement stopped within half the distance specified when additional instructions were not received? NO
- Did radio malfunction any time before incident, and is it still used in service? NO
- Were there other radio communications that interfered with transmission? NO
- Was radio on and tuned to proper channel? YES

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EMPLOYEE WORK HISTORY

PAGE: 1

DATE: 01/31/17

REQUEST BY: OPPR148

TIME: 10:20

PROGRAM ID: PSTR407

NAME: SCHNEIDER, JP (JOHN) NUMBER: 000412138

START DATE: 01/01/17 END DATE: 01/31/17 SORT BY CENTRAL DATE/TIME: N

LOCAL EFFECTIVE	FUNCTION	CENTRAL DATE/TIME	TRAIN SYMB	ST/RC	CIRC7	BOARD	CREW	POS	TERM
01/02-14:39P	LAYOFF	01/02-16:40		OS0 CW	OT161	RT22	ST05	CON	
01/02-19:30P	ASGN CALL	01/02-21:30	GSETSE 02	OS0 CW	OT161	RT22	ST05	CON	
01/02-21:30P	TRK INIT	01/02-21:30	GSETSE 02	OS0 CW	OT161	RT22	ST05	CON	
01/02-21:30P	ASGN CALL	01/02-21:31	GSETSE 02	OS0 CW	OT161	RT22	ST05	CON	
01/02-21:30P	LOST WORK	01/03-08:36	GSETSE 02	OS0 CW	OT161	RT22	ST05	CON	
01/03-07:00P	MARKUP	01/03-09:00		OS0 CW	OT161	RT22	ST05	CON	
01/03-07:06P	SEN-MOVE	01/03-09:06		OK0	OT161	TNGT	DE02	CON	
01/03-17:30P	ASGN CALL	01/03-19:30	MHKET 03	OK0	OT161	TNGT	DE02	CON	
01/03-19:00P	ASGN CALL	01/03-19:31	MHKET 03	OK0	OT161	TNGT	DE02	CON	
01/03-19:00P	LOST WORK	01/04-08:25	MHKET 03	OK0	OT161	RT22	ST05	CON	
01/04-06:27P	TRK TERM	01/04-08:25	MHKET 03	OK0	OT161	RT22	ST05	CON	
01/05-07:00P	CALL	01/05-05:03	DEPO00205	OD0	OT161	TNGT	DE02	CON	OT161
01/05-10:30P	ASGN CALL	01/05-12:30	OEOT5 04	OD0	OT161	TNGT	DE02	CON	
01/05-12:30P	TRK INIT	01/05-12:30	OEOT5 04	OD0	OT161	RT22	ST05	CON	
01/05-12:30P	ASGN CALL	01/05-12:31	OEOT5 04	OD0	OT161	TNGT	DE02	CON	
01/05-12:30P	LOST WORK	01/06-00:27	OEOT5 04	OD0	OT161	RT22	ST05	CON	
01/05-19:00P	PEND MOVE	01/03-09:06		OK0	OT161	TNGT	DE02	CON	
01/05-19:00P	NOTIFIED	01/03-09:06		OK0	OT161	TNGT	DE02	CON	
01/05-19:00P	DISPLACED	01/05-21:00		OD0	OT161	TNGT	DE02	CON	
01/05-21:20P	QUICK TIE	01/05-23:21	DEPO00205	OK0	OT161	TNGT	DE02	CON	OT161
01/06-11:06P	ASGN CALL	01/06-13:06	OT5EO 05	OK0	OT161	RT22	ST05	CON	
01/06-12:36P	ASGN CALL	01/06-13:07	OT5EO 05	OK0	OT161	RT22	ST05	CON	
01/06-12:36P	LOST WORK	01/07-00:21	OT5EO 05	OK0	OT161	RT22	ST05	CON	
01/06-22:21P	TRK TERM	01/07-00:21	OT5EO 05	OK0	OT161	RT22	ST05	CON	
01/08-17:30P	OUTB STRT	01/08-19:30	GSETVA 08	AV0	OT161	RT22	ST05	CON	OT161
01/08-17:30P	PHON CALL	01/08-20:05	GSETVA 08	AV0					
01/08-18:03P	OUTB FAIL	01/08-20:03	GSETVA 08	AV0					
01/08-19:30P	CALL	01/08-20:46	GSETVA 08	OD0	OT161	RT22	ST05	CON	OT161
01/09-06:30P	TIE UP	01/09-08:27	GSETVA 08	OK0	OT161	RT22	ST05	CON	OX591
01/09-22:35P	OUTB STRT	01/10-00:35	GSBBET 09	AV0	OT161	RT22	ST05	CON	OX591
01/09-22:35P	PHON CALL	01/10-00:36	GSBBET 09	AV0					
01/10-00:05P	CALL	01/10-00:36	GSBBET 09	OD0	OT161	RT22	ST05	CON	OX591
01/10-12:18P	QUICK TIE	01/10-14:16	GSBBET 09	OK0	OT161	RT22	ST05	CON	OT161
01/11-18:53P	DENY LOFF	01/11-20:53		PL0	OT161	RT22	ST05	CON	
01/12-15:28P	DENY LOFF	01/12-17:28		PL0	OT161	RT22	ST05	CON	
01/12-16:25P	LAYOFF	01/12-18:25		PL0	OT161	RT22	ST05	CON	
01/13-16:25P	MARKUP	01/13-18:25		PL0	OT161	RT22	ST05	CON	
01/14-03:52P	BDCST MSG	01/14-03:52		OK0					
01/14-12:26P	LAYOFF	01/14-14:27		LVO 1D	OT161	RT22	ST05	CON	
01/14-15:38P	BDCST MSG	01/14-15:38		LVO 1D					
01/15-12:26P	LAYOFF	01/15-14:03		LVO 1D	OT161	RT22	ST05	CON	
01/16-12:26P	MARKUP	01/16-14:26		LVO 1D	OT161	RT22	ST05	CON	
01/16-14:07P	REJT RJNW	01/16-16:07	4WSKSKW 16	OK0	OT161	RT22	ST05	CON	
01/17-06:07P	OUTB STRT	01/17-08:07	DH37 17	AV0	OT161	RT22	ST05	CON	OT161
01/17-06:07P	PHON CALL	01/17-08:08	DH37 17	AV0					
01/17-08:07P	CALL CDS	01/17-08:08	DH37 17	OD0	OT161	RT22	ST05	CON	OT161
01/17-08:07P	TAXI REQ	01/17-08:16	DH37 17	OD0					