

UNION PACIFIC RAILROAD COMPANY

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WESTERN REGION

Brigadier General (CA) Jack Hagan
Director, Consumer Protection and Safety Division
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102

September 17, 2012

Dear General Hagan:

As part of Union Pacific Railroad's capital maintenance investment plan for 2013, we plan to continue replacing wood ties with concrete ties on our Donner Pass Line. We will install 64,000 concrete ties and 19.8 miles of new continuously welded rail for a total estimated project cost of \$22,800,000. The project will take place in two locations. The first location, which will complete this year's portion of the project, is between Newcastle and Rocklin, MP 110.43 to MP 120.36 on our number 2 track. The second location is between Shed 10 and Norden, MP 178.21 to MP 192.55 on the number 1 track.

Our current schedule calls for starting the Newcastle to Rocklin segment on May 16, 2013 and completing the work on June 2, 2013. We will start the Shed 10 to Norden segment on June 3, 2013 and complete it on June 23, 2013.

This project is part of our strategy to convert wood tie track to concrete tie track on our mountain grades. Concrete ties have been instrumental in improving safety by reducing derailments in areas where Union Pacific has installed them. Other areas in California where concrete ties have been installed include the Tehachapi Mountains between Bakersfield and Mojave and the Cascade Mountains between Lakehead and Mt. Shasta (through Dunsmuir). The work to be done in 2013 will complete and extend a project to replace wood ties with concrete ties and install new continuous welded rail in the Sierras between Rocklin and Colfax that Union Pacific began in 2012.

As it did during this year's concrete tie upgrade, Union Pacific plans to supplement the existing hot box and dragging equipment detectors by installing "wheel down indicators" at intermediate signals within the project limits. The intermediate signals vary between one and two miles apart. A wheel down indicator is a device that is attached to the top of a tie or placed between ties. When a wheel is "down" or derailed, a radio transmission automatically directs the train crew to stop their train. A wheel down indicator differs from a dragging equipment detector by being "hardened" to the point that dragging equipment such as banding or low air hoses between cars will not activate the device.

Union Pacific wishes to continue to utilize this new technology to enhance safety. Installation of wheel down indicators to supplement our existing detection systems will shorten the distance between any wheel down notification and the possible distance a train may travel with a wheel down, reducing the probability of a derailment involving multiple cars, overturned cars, spills, or damage to private or public infrastructure. All of these improvements are directly related to the safety of employees, first responders, and members of the public.

The process that we use to install the concrete ties and new rail utilizes our track renewal train, the TRT-909. Our daily production target for this project is 3,500 ties, which is about 1.3 miles. The track renewal

process will plow the existing ballast to the side, leaving a smooth surface adjacent to the track and improving the walkway area. This process improved the walkway areas during the 2012 project.

The terrain in the area where the project is planned is mountainous. There is limited space due to steep cuts, high fills, vertical rock walls and adjacent creeks. Many of these features date back to the construction of the original transcontinental railroad in the 1860s. The railroad has had to work within the constraints created by these features since that time. One of the problems that this presents involves walkways. Walkway requirements did not exist when the Central Pacific Railroad built the original grade through the Sierras. This has left us with many places where physical features, such as rock walls and cliffs, leave insufficient room for construction of a general Order 118-A walkway. Engineering additional space in these locations would be difficult and extremely expensive. In some places, we estimate the unit cost for such work would be between \$1,400 and \$2,200 per lineal foot (depending on the slope of embankments) to install the retaining walls necessary to construct fully compliant walkways. These figures do not include the engineering design costs. Widening a cut by removing more of the mountain where retaining walls may not be feasible would present additional costs and complications. In short, doing this project will not be cost effective if these types of retaining walls and widened cuts are required.

This is main line track where trains are not required to stop under normal operating conditions, and the only time a train crew is required to be on the ground is after an emergency stop, when it becomes necessary for them to walk alongside the train to perform their assigned inspection duties. This means that this is Type D track under the 1990 Consensus Agreement related to tracks constructed prior to the Commission's adoption of General Order 118 in 1963. One could make the argument that the addition of wheel down indicators would convert this to Type C track, thereby requiring an evaluation of whether walkway improvements are necessary within certain distances of the indicators. In this case, though, even if there were to become Type C track, the historically low frequency of emergency stops that Union Pacific experiences in this area makes it unlikely that the Consensus Agreement would require construction of walkway improvements related to the new indicators.

By letter from me dated November 10, 2011, Union Pacific requested a deviation from the Commission's walkway requirements at certain locations related to the first phase of this concrete tie project under the expedited deviation process described in the Consensus Agreement. The Commission granted that request by adopting Resolution ROSB-003, a copy of which I have enclosed for your reference. By this letter, Union Pacific requests the same deviation from the walkway requirements for the next phase of the project that I have described above. Without such a deviation, this project and the voluntary safety improvements that it will provide will be cost-prohibitive to execute.

As it did in relation to the prior deviation, to mitigate the continued absence of walkways in some locations, Union Pacific will issue a general order that will instruct employees not to walk their train when the wheel down indicator is activated in this area. Instead, they will report to the dispatcher that they have been stopped by a wheel down indicator and require assistance. A team that is familiar with the area will respond, assess the situation, and mobilize whatever additional resources may be needed to re-rail the car and make repairs. This process would eliminate the chance that a crew member would ever have a reason to walk their train where there are not adequate walkways. This change in the process will be one more way that this project improves safety. A copy of the proposed general order and a list of the specific locations where the deviation would apply are enclosed.

This project also presents issues related to the distances between tracks. Section 5.1 of General Order 26-D requires 14-foot track centers between parallel tracks. Based on data collected by our geometry car, there are 3.3 miles of track that will be involved in this project that have less than 14-foot track centers. I have enclosed a table that shows these locations highlighted in yellow. You will note that most of the variances are very minor, but each one of them raises the same issues related to the available width of the right of way as the walkway requirements do. Moving these track centers to 14 feet will reduce the space available for walkways and in some cases may add to the list of locations where building compliant walkways is not possible. In the interest of making safety improvements, and in an effort to balance the conflicting use of available space for walkways and track clearances, Union Pacific requests an exemption under G.O. 26-D Section 16.2 in order to build this project with track centers less than 14 feet at those locations highlighted on the enclosure. To avoid questions about technical violations, Union Pacific asks for the exemption to state that the railroad may use track centers greater than 13 feet but less than 14 at these locations.

Thank you for your consideration of these requests. I believe that the project and the new process for responding to derailments in this area will provide important safety enhancements for railroad employees and the public.

Sincerely,



David Wickersham
Chief Engineer, Western Region

cc. Paul King, Deputy Director
Public Utilities Commission

Joe Farley
Public Utilities Commission

Timothy L. Smith, State Chairman
California State Legislative Board
BLETIIBT Rail Conference
610 Auburn Ravine Rd., Suite C
Auburn, CA 95603

James (J.P.) Jones
State legislative Director
United Transportation Union
1005 12th Street, Suite 4
Sacramento, CA 95814-3941

be: Shane Keller
David Connell
John Huddleston
David Pickett

PROPOSED GENERAL ORDER NUMBER

PACIFIC RAILROAD COMPANY

-----DOCUMENT TEXT-----

ROSEVILLE AREA TIMETABLE NO. 5

EFFECTIVE AUGUST 24, 2009

*** ROSEVILLE SUBDIVISIONS ON GENERAL ORDER NO. xx ***

PURPOSE:

SI-07: Wheel Dmm Indicators added between Jordan and Shed 10.

Subdivision instructions not modified by this General Order remain in effect.

SI-07 ITT-13 TRAIN DEFECT DETECTORS

Add Wheel Dmm Indicators (.) between Norden and Shed 10. With these and previous changes, revise the entire Train Defect Detector cell to read:

%	237.8	TRK2	(f)	237.8	TRK1	%	232.8		
&	229.7	**	%	227.9	TRK1	(f)	221.7		
%	217.8		%	210.5		(f)	203.9		
%	198.4		%	195.5		(.)	194.6		
(*)	192.5		%	190.0		(.)	189.2		
(.)	187.3		(#)	185.3		(.)	183.2		
(.)	181.6		%	179.6		(.)	178.5		
%	176.8		(.)	174.9					
%	172.8		(#)	170.8		%	163.2		
%	159.4		(#)	154.4		%	152.0		
%	150.3		(#)	148.8		%	146.3	TRK1	
%	145.5	TRK2	%	143.3	TRK1	&-	140.0	TRK2	
%	139.2	TRK2	%	138.5	TRK1	%	138.4	TRK1	
(.)	137.6	TRK2	%	136.4	TRK2	(*)	136.3	TRK1	
(*)	134.7	TRK1	(*)	134.4	TRK2	(*)	133.6	TRK2	
(*)	133.3	TRK1	(*)	132.4	TRK2	%	132.4	TRK1	
(i)	131.7	TRK1	(*)	131.1	TRK1	(f)	130.8	TRK2	
(*)	130.7	TRK2	&-	129.8	TRK2	%	127.5	TRK2	
%	127.4	TRK1	(*)	126.5	TRK2	(*)	125.8	TRK1	
(.)	124.4	TRK1	(*)	122.7	TRK2	%	122.5	TRK1	
%	121.5	TRK2	(*)	118.7	TRK1	(*)	118.3	TRK2	
%	117.7	TRK2	(*)	116.9	TRK2	(*)	116.7	TRK1	
(*)	115.4	TRK2	%	115.4	TRK1	(*)	114.1	TRK1	
(*)	113.6	TRK2	(*)	112.9	TRK1	(f)	112.2	TRK2	
(.)	111.9	TRK2		111.9	TRK1	&	111.0	TRK2*	

Add:

Symbol (*) represents a Wheel Dmm Indicator. When a Wheel Dmm is detected by a track side indicator, stop the train as soon as possible consistent with train handling techniques that will minimize in train forces. DO NOT TALK YOUR TRAIN. Immediately contact the train dispatcher who will notify a team to respond to the derailed wheel.

Symbol &- is a high load detector, talk on defect.

Trains receiving high load warning from these detectors must use Track fill between Bolman and Colfax.

COLFAX: Westward trains handling doublestack cars loaded with containers high, or car kinds M3X and M3Y (tri-level autoracks) must operate ONLY on Track fill between Colfax and Bolman.

BOLMAN: Eastward trains handling doublestack cars loaded with containers high, or car kinds M3X and M3Y (tri-level autoracks) must operate ONLY on Track fill between Bolman and Colfax.

* Protects Tunnel 17 MP 117.3: after proper inspection if crew cannot ascertain reason for detector activation, crew must contact Train Dispatcher to arrange inspection by Car Dept. before proceeding.

** Protects Tunnel 42 and Tunnel 13 MP 198.2.

NOTE:

hw (Hot Wheel/Sliding Wheel) detector at MP 154.4 on Trk.1 is a separate function from the Hot Box/Dragger III) portion of the detector. Trains activating the Hot Wheel detector must stop immediately consistent with proper train handling technique. If necessary, train must be secured before making inspection. After inspection, if flat spots are found exceeding measurements in Rule 1.34, crew member must notify Train Dispatcher who will notify district NTO/NOP. Train must not be moved without authority from district NTO/NOP.

SI-14 !HSCELLANEOUS INSTRUCTIONS

Add:

When train inspection is required between MP 110.5 and MP 141.8 and between MP 178.2 and MP 192.5 on either track but walking conditions may not allow train to be safely inspected, the following procedures must be followed:

1. Determine safest side of train to perform the inspection.
2. If at any point during the inspection it is determined that the opposite side would be the safest route, employee may crossover and continue the inspection.
3. If employee determines that a walking inspection of the train may not be performed or completed safely, contact the dispatcher for further instructions.

**SIGNATURE: John
Huddleston
SIGNATURE
TITLE: Superintendent**

Minimum track Centers
 1/4 mile intervals
 Norden to Shed 10
 Geometry Car Data

Track		MP	Track Center
NO 1		178.3	16.1
NO 1		178.4	16.65
NO 1		178.5	17.891
NO 1		178.6	16.72
NO 1		178.7	16.879
NO 1		178.8	18.313
NO 1		178.9	17.789
NO 1		179	13.617
NO 1		179.1	15.262
NO 1		179.2	17.332
NO 1		179.3	17.379
NO 1		179.4	16.223
NO 1		179.5	17.141
NO 1		179.6	17.5
NO 1		179.7	17.723
NO 1		179.8	Over 20
NO 1		179.9	Over 20
NO 1		180	Over20
NO 1		180.1	15.82
NO 1		180.2	Over 20
NO 1		180.3	Over 20
NO 1		180.4	13.395
NO 1		180.5	13.229
NO 1		180.6	13.93
NO 1		180.7	14.04
NO 1		180.8	13.73
NO 1		180.9	13.457
NO 1		181	13.54
NO 1		181.1	13.602
NO 1		181.2	13.676
NO 1		181.3	13.67
NO 1		181.4	13.71
NO 1		181.5	13.7
NO 1		181.6	13.71
NO 1		181.7	14.04
NO 1		181.8	15.37
NO 1		181.9	16.49
NO 1		182	16.8
NO 1		182.1	15.85
NO 1		182.2	13.926

NO 1		182.3	13.68
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NO 1		182.4	13.49
NO 1		182.5	15.32
NO 1		182.6	15.26
NO 1		182.7	14.69
NO 1		182.8	14.69
NO 1		182.9	17.29
NO 1		183	16.95
NO 1		183.1	16.62
NO 1		183.2	17.86
NO 1		183.3	18.12
NO 1		183.4	17.94
NO 1		183.5	17.32
NO 1		183.6	17.848
NO 1		183.7	17.465
NO 1		183.8	17.734
NO 1		183.9	15.215
NO 1		184	14.81
NO 1		184.1	15.04
NO 1		184.2	14.73
NO 1		184.3	14.57
NO 1		184.4	14.49
NO 1		184.5	14.75
NO 1		184.6	14.92
NO 1		184.7	16.258
NO 1		184.8	14.816
NO 1		184.9	15.453
NO 1		185	14.45
NO 1		185.1	15.43
NO 1		185.2	14.68
NO 1		185.3	14.652
NO 1		185.4	14.82
NO 1		185.5	14.58
NO 1		185.6	18
NO 1		185.7	17.48
NO 1		185.8	17.496
NO 1		185.9	15.719
NO 1		186	19.871
NO 1		186.1	19.887
NO 1		186.2	16.277
NO 1		186.3	13.891
NO 1		185.4	13.62
NO 1		186.5	13.38
NO 1		186.6	17.81
NO 1		186.7	16.832
NO 1		186.8	17.645

NO 1		186.9	17.5
NO 1		187	17.47

NO 1		187.1	17.26
NO 1		187.2	17.07
NO 1		187.3	16.84
NO 1		187.4	17.16
NO 1		187.5	16.66
NO 1		187.6	13.332
NO 1		187.7	13.66
NO 1		187.8	14.11
NO 1		187.9	13.19
NO 1		188	13.465
NO 1		188.1	14.727
NO 1		188.2	18.184
NO 1		188.3	13.12
NO 1		188.4	18.156
NO 1		188.5	13.535
NO 1		188.6	13.69
NO 1		188.7	13.93
NO 1		188.8	13.96
NO 1		188.9	13.7
		189	13.3
NO 1		189.1	13.29
NO 1		189.2	12.914
NO 1		189.3	13.57
NO 1		189.4	13.57
NO 1		189.5	13.41
NO 1		189.6	13.32
NO 1		189.7	14.402
NO 1		189.8	16.879
NO 1		189.9	17.01
NO 1		190	17.02

Resolution ROSB-003
PWK/sdr

DRAFT

Agenda Item ID# 10958
December 23, 2011

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

CONSUMER PROTECTION & SAFETY DIVISION
Railroad Operations Safety Branch

RESOLUTION ROSB-003
January 12, 2012

RESOLUTION

Resolution ROSB-003. This resolution grants the request of Union Pacific Railroad to deviate from the requirements of General Order 118-A governing walkway standards, at specific locations on its main-line tracks between Rocklin and Colfax on its Donner Pass Route through the Sierra Nevada Mountains.

SUMMARY

Union Pacific Railroad (Union Pacific) is reconstructing its main-line tracks in California between Rocklin and Colfax on its Donner Pass Route that travels between Roseville, California, and Sparks, Nevada. Old wood-tie track will be replaced with new concrete ties, new rail, and new underlying ballast material. Portions of this line have been exempt from meeting the California Public Utilities Commission's (Commission) walkway standard adopted originally in 1963, now embodied in General Order 118-A, because the General Order exempts walkways constructed prior to 1963 unless the tracks have been reconstructed. Now that reconstruction will occur, Union Pacific requests deviations in certain steep mountain areas and proposes changes to its operating rules to provide safety to its employees who might otherwise be required to occupy these areas. This resolution grants Union Pacific's request and adopts the conditions proposed by the railroad to address safety.

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BACKGROUND

General Order 118-A is the Commission's General Order that governs standards for walkways adjacent to railroad tracks.

General Order 118-A permits deviations to be granted under the following conditions, described in the following excerpts from Section 7 of the General Order and Section 5 of the "Consensus Agreement" adopted in D.90-09-047:

- a.) In granting deviations, the principle to be followed is that of ensuring appropriate employee safety in performing tasks which are required under the circumstances of the particular activity being undertaken. Conformance to a particular pattern, formula, or design is not necessary. While cost effectiveness may be considered, it will not be the sole criterion, and the deviation procedure will not be employed, and deviations will not be granted, simply to avoid costs.
- b.) Written requests for deviations shall be prepared by the carrier and submitted to the Director of the Safety Division, with a copy being served on the California State employee representatives of the carrier's affected trainmen, and on all other interested parties. The deviation request shall include a full statement of the conditions which prevail at the time and place involved, and shall specify the reasons why the deviation is deemed necessary. The request shall also include a showing that the deviation will not create a detriment to safety.¹

Consistent with the procedure set forth in Subsection b above, Union Pacific submitted a written letter to the Consumer Protection and Safety Division on November 10, 2011. Union Pacific plans to replace the existing wood tie track on both main lines between Rocklin and Colfax with new rail and concrete ties. The project will include installing

¹ 0.90-09-047, Consensus Agreement, Section 5, Subsections a and b.

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199,000 concrete ties and 75 miles of 136-pound new continuously welded rail for an estimated project cost of \$66,000,000. Reconstruction is scheduled to finish on March 18, 2012.

This project is part of Union Pacific's strategy to convert wood tie track to concrete tie track on its mountain grades. Union Pacific states that installing concrete ties improves safety, and that the railroad has seen a reduction in derailments where it has installed concrete ties. Other areas in California where concrete ties have been installed include the Tehachapi Mountains between Bakersfield and Mojave and the Cascade Mountains between Lakehead and Mt. Shasta (through Dunsmuir).

To help protect these infrastructure upgrades, Union Pacific plans to supplement existing hot wheel-bearing and dragging equipment detectors by installing 22 "wheel-down indicators" at intermediate signals within these project limits. The intermediate signal spacing varies between one and two miles apart. A wheel-down indicator is a device that is attached to the top of a tie or placed between ties. When a wheel is "down" or derailed, a radio transmission automatically directs the train crew to stop their train. A wheel-down indicator differs from a dragging equipment detector by being hardened to the point that dragging equipment, such as banding or low air hoses between cars, will not activate the device.

Union Pacific states that it wishes to utilize this new technology to enhance safety. Installation of wheel-down indicators to supplement their existing detection systems will shorten the distance between any wheel-down notification and the possible distance a train may travel with any derailed wheels or cars, thereby reducing the probability of a derailment involving multiple cars, overturned cars, spills, or damage to private or public infrastructure. All of these improvements are directly related to the safety of employees, first responders, and members of the public.

Union Pacific states that its records show that in the past year there have been no train stops due to the activation of the existing dragging equipment and hot box detectors in the area where they seek deviations. Based on prior experience, they expect wheel down indicators to be activated even less often than the detectors. This low frequency does not diminish the value of the safety improvements planned here because of the importance of reducing the risks related to a derailment of any kind and at any time.

The process that Union Pacific will use to install the concrete ties and new rail utilizes the railroad's TRT-909 machine, an expensive production machine that replaces ties, rail, and supporting ballast in one move over the track being reconstructed. Union Pacific's daily production target for this project is 3,500 ties, which is about 1.3 miles. The track renewal process will plow the existing ballast to the side, leaving a smooth surface adjacent to the track and improving the walkway area.

The terrain in the area where the project is planned is mountainous. There is limited space due to steep cuts, high fills, vertical rock walls, and adjacent creeks. Many of these features date back to the construction of the original transcontinental railroad in the 1860's. The railroad has had to work within the constraints created by these features since that time. One of the problems that this presents involves walkways. Walkway requirements did not exist when the Central Pacific Railroad built the original grade through the Sierras. This has left many places where physical features, such as rock walls, leave insufficient room for construction of a General Order 118-A walkway. For example, at the historic Bloomers Cut, the addition of fully compliant walkways would require widening the cut or constructing retaining walls. Retaining walls would require H-beam piling driven on 4- to 5-foot centers, with concrete planks set between the piling to form the walls. Depending on the slope of the embankment, Union Pacific estimates

the unit cost for such work would be between \$1,400 and \$2,200 per linear foot. The railroad estimates that 21,700 total linear feet of retaining wall would be required to add standard walkways. The total preliminary cost estimate for the retaining walls is \$46,000,000. This amount does not include the engineering design costs to determine details of retaining wall construction, nor does it include the cost to widen the cuts. These figures show that the track reconstruction project will not be cost effective if this type of retaining wall and cut widening is required.

The areas where the deviation is requested are on main line track where trains are not required to stop under normal operating conditions, and the only time a train crew is required to be on the ground is after an emergency stop, when it becomes necessary for them to walk alongside the train to perform their assigned inspection duties. This means that this is Type D track under the 1990 Consensus Agreement related to tracks constructed prior to the Commission's adoption of General Order 118 in 1963. The Consensus Agreement provides the following definition:

Type D tracks are those where trains are not required to stop under normal operating conditions, and the only time railroad employees are required to be on the ground is after an emergency stop when it then becomes necessary for them to walk alongside the train to perform their assigned inspection and repair duties.²

Union Pacific indicates that the addition of wheel-down indicators could be argued as converting this track's designation to Type C track, thereby requiring an evaluation of whether walkway improvements are necessary within certain distances of the indicators.

Type C tracks are limited to locations on main and branch lines where the following functions occur: trains infrequently stop under established operating

² Decision 90-09-047, Appendix C, Section 4.a.

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practices and railroad employees are required to get on and off and to walk alongside the stopped equipment to perform their assigned duties. Switching operations are not performed on Type C tracks?

Union Pacific believes that if this were to become Type C track, the historically low frequency of emergency stops would make it unlikely that the Consensus Agreement would require construction of walkway improvements related to the new indicators.

However, expressing the intent to remove any uncertainty, Union Pacific has requested a deviation from the Commission's walkway requirements related to the concrete tie project under the expedited deviation process described in the Consensus Agreement. According to Union Pacific, if Standard 1 walkways were to be required, this project and the incremental safety improvements that it will provide would be cost-prohibitive to execute. To mitigate the continued absence of walkways in some locations and confirm that this will continue to be Type D track, Union Pacific will issue a general order that will instruct employees not to walk their train when the wheel-down indicator is activated in this area and under other unplanned conditions such as a brake application due to a broken air hose.

When employees receive a wheel-down indication they will report to the dispatcher that they have been stopped by a wheel-down indicator and will require assistance. A team that is familiar with the area will respond, assess the situation, and mobilize whatever additional resources may be needed to re-rail the car and make repairs. This process will eliminate the chance that a crew member would ever have a reason to walk his or her train due to a derailment where there are not adequate walkways.

³ Decision 90-09-047, Appendix C, Section 3.a.

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The project will improve employee safety in two additional ways. First, in the process of removing the existing ballast, the TRT-909 production machine will spread the old ballast to the sides, enhancing the walkway area. Second, Union Pacific will adopt an explicit operating rule giving employees the discretion to not walk into any area unsafe to occupy due to the absence of a safe walkway. While this has always been implicit in general safety rules, it is an added safety benefit to have this explicit reassurance.

The boundaries of the requested deviations are listed in Appendix A to this resolution. The new operating rules providing added safety for employees who may otherwise be required to occupy these areas are included as Appendix B to this resolution. Tunnel locations where Standard walkways are not required, and thus are not part of this deviation request, are listed in Appendix C.

NOTICE AND PROTEST

The Union Pacific's request was noticed on the Commission's Daily Calendar of November 17, 2011.

No protests were received.

DISCUSSION

The Commission's Consumer Protection and Safety Division (CPSD) staff (Staff) has reviewed the request and supporting documents and agrees that the deviation should be granted. The areas where the deviation is requested have been without G.O. 118-A Standard 1 walkways since the railroad was built in the 1860's. This track reconstruction project will result in better derailment prevention due to the enhanced track infrastructure, including stronger and more durable ties that will more safely secure the

PWK/sdr

rails, and the installation of derailment detectors known as "wheel-down" detectors that will provide an early warning to the engineer allowing him or her to stop the train before the derailed wheels result in a bigger derailment of multiple cars.

Staff agrees that to install Standard 1 walkways throughout the reconstruction area would make the track reconstruction project cost-prohibitive. The cost of the project would be many times over the cost of the track reconstruction and detector installations.

Unfortunately, the economics of the project are such that if Standard 1 walkways are required throughout, that the entire project would likely be dropped.

However, in keeping with the Consensus Agreement, that "cost will not be the sole criterion," Staff agrees that the added operational protections for train and engine employees will provide more explicit protection for employees who must make important decisions regarding unplanned train inspections. Thus not only will there be a net safety improvement with the project with its deviations, but each element, both to the public and the employees, will have safety enhancements. Consistent with the requirements of the Consensus Agreement, approving the requested deviation "will not create detriment to safety." Staff supports the deviation request as limited to the locations documented in Appendix A, and as addressed in the operating conditions as documented in Appendix B. The Director of the Consumer Protection and Safety Division⁴ recommends that the deviations be granted as described herein.

COMMENTS

Public Utilities Code Section 311(g)(1) requires that Draft Resolutions be served on all parties and subject to at least 30 days public review and comment prior to a vote of the

⁴ The Consensus Agreement requires the recommendation of the "Director of the Safety Division." The Consumer Protection and Safety Division (CPSD) is the successor to the Safety Division.

Commission. Public Utilities Code section 311 (g)(2) and Rule 14.6(c)(2) both provide that the 30-day comment period may be waived "...for an uncontested matter in which the decision grants the relief requested." Therefore pursuant to Public Utilities Code section 311(g)(2) and Rule 14.6(c)(2) the 30-day comment period for Draft Resolutions is being waived in this instance.

FINDINGS

1. The procedures employed for requesting and granting the deviations sought in Union Pacific's November 10, 2011, letter comply with the requirements in the Consensus Agreement in D.90-09-047.
2. No protests were received.
3. Union Pacific's November 10, 2011, request and additional safety mitigations and location identifications in Union Pacific's letter and spreadsheet of December, 15, 2011, comply with the requirements of the Consensus Agreement in D.90-09-047 to limit the deviation to the time and place involved.
4. Safety will be improved by the track reconstruction and wheel-down installation project.
5. Some walkway areas will be improved through the spreading of the old ballast material adjacent to the track.
6. Protections to employees whose duties at times require them to be on the ground adjacent to the track have been enhanced by new operating rules.
7. The deviation request is limited to specifically identified areas.
8. Granting the deviation will not create a detriment to safety.

THEREFORE IT IS ORDERED THAT:

1. Union Pacific Railroad's request to deviate from General Order 118-A Standard 1 walkway requirements for track reconstruction, as described in its letter of November 10, 2011, included herein as Appendix xx, is granted.
2. The deviation is limited to mainline tracks 1 and 2 between Rocklin and Colfax at the locations documented in Appendix A.
3. Union Pacific Railroad must preserve and observe the added protections to employees as documented in Appendix B.
4. Changes to any conditions of this deviation must comply with the requirements of General Order 118-A and Decision 90-09-047.

This Resolution is effective today.

■ certify that this resolution was adopted by the Public Utilities Commission at its regular meeting on January 12, 2012, by the following Commissioners approving it.

PAULCLANON
Executive Director

Appendix A
Resolution ROSB-003

Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Walkways Between Rocklin and Colfax
On Main Tracks 1 And 2.

**Appendix A, Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Wafk'lays between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
1	110.82	110.9	Both	0.08
1	111.12	111.27	Both	0.15
1	111.5	111.51	Both	0.01
1	111.61	112.58	Both	0.97
1	112	112.58	North	0.58
1	112.75	112.76	Both	0.01
1	112.99	113	Both	0.01
1	113.25	113.45	Both	0.20
1	113.25	113.45	North	0.20
1	113.88	113.89	Both	0.01
1	114.9	114.95	Both	0.05
1	114.9	114.95	North	0.05
1	115.01	115.15	North	0.14
1	115.01	115.35	Both	0.34
1	115.4	115.75	Both	0.35
1	115.95	116.15	Both	0.20
1	116.22	116.27	Both	0.05
1	116.31	116.35	South	0.04
1	116.35	116.45	North	0.10
1	116.35	117.3	South	0.95
1	116.5	117.3	North	0.80
1	116.31	117.35	Both	1.04
1	117.3	117.35	North	0.05
1	117.5	117.6	Both	0.10
1	117.5	117.6	North	0.10
1	117.8	117.9	Both	0.10
1	118.1	118.35	Both	0.25
1	118.45	118.48	North	0.03
1	118.45	118.64	Both	0.19
1	118.58	118.64	South	0.06
1	118.75	118.76	Both	0.01
1	120	120.01	Both	0.01

**Appendix A, Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Walkways between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
1	120.89	120.93	Both	0.04
1	121	121.3	Both	0.30
1	121.5	121.51	Both	0.01
1	121.83	121.9	Both	0.07
1	122.42	122.45	Both	0.03
1	122.42	122.45	South	0.03
1	122.66	122.68	Both	0.02
1	123.08	123.21	Both	0.13
1	123.36	123.42	Both	0.06
1	123.36	123.42	North	0.06
1	123.5	123.55	Both	0.05
1	123.61	123.62	Both	0.01
1	123.89	123.9	Both	0.01
1	124.07	124.16	Both	0.09
1	124.07	124.16	North	0.09
1	124.29	124.3	Both	0.01
1	124.7	124.75	Both	0.05
1	124.7	124.75	North	0.05
1	124.89	125	South	0.11
1	124.89	125.06	Both	0.17
1	125.9	125.97	Both	0.07
1	125.9	125.97	North	0.07
1	126.05	126.15	Both	0.10
1	126.05	126.15	North	0.10
1	126.25	126.54	Both	0.29
1	126.61	126.69	Both	0.08
1	126.61	126.69	North	0.08
1	126.86	126.9	Both	0.04
1	126.86	126.9	North	0.04
1	127.1	127.2	North	0.10
1	127.2	127.31	North	0.11
1	127.1	127.41	Both	0.31
1	127.31	127.41	South	0.10

**Appendix A, Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Walkways between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
1	127.45	127.5	Both	0.05
1	127.58	127.59	Both	0.01
1	127.8	127.95	Both	0.15
1	128.14	128.15	Both	0.01
1	128.24	128.5	Both	0.26
1	128.56	128.57	Both	0.01
1	128.9	128.98	Both	0.08
1	128.9	128.98	North	0.08
1	129.67	129.81	Both	0.14
1	130.06	130.12	Both	0.06
1	130.06	130.12	North	0.06
1	131.25	131.27	Both	0.02
1	131.25	131.27	South	0.02
1	131.33	131.36	Both	0.03
1	131.51	131.61	South	0.10
1	131.51	131.7	Both	0.19
1	131.61	131.7	South	0.09
1	133.32	133.5	Both	0.18
1	133.52	133.6	Both	0.08
1	133.52	133.6	South	0.08
1	133.75	133.8	Both	0.05
1	134.38	134.41	Both	0.03
1	134.38	134.41	South	0.03
1	134.66	134.75	Both	0.09
1	135.15	135.2	Both	0.05
1	135.35	135.36	Both	0.01
1	135.5	135.55	Both	0.05
1	135.62	135.63	Both	0.01
1	135.87	136.2	Both	0.33
1	136.2	136.28	Both	0.08
1	136.28	137.7	Both	1.42
1	136.37	136.38	Both	0.01

**Appendix A, Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Walkways between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
1	137.75	137.77	North	0.02
1	137.89	137.95	South	0.06
1	137.85	138.04	Both	0.19
1	137.95	138.04	North	0.09
1	138	138.04	North	0.04
1	138.1	138.25	North	0.15
1	138.1	138.28	Both	0.18
1	138.3	138.31	Both	0.01
1	138.4	138.43	North	0.03
1	138.3	138.85	Both	0.55
1	138.92	138.99	Both	0.07
1	138.96	138.99	North	0.03
1	139.07	139.1	Both	0.03
1	139.07	139.1	North	0.03
1	139.42	139.45	Both	0.03
1	139.57	139.58	Both	0.01
1	139.6	139.64	North	0.04
1	139.6	139.94	Both	0.34
1	139.88	139.94	North	0.06
1	140.1	140.32	North	0.22
1	140.1	140.36	Both	0.26
1	140.32	140.36	North	0.04
1	140.41	140.55	Both	0.14
1	140.41	140.55	North	0.14
1	140.64	140.65	Both	0.01
1	140.73	140.85	Both	0.12
1	141.05	141.2	Both	0.15
1	141.05	141.2	North	0.15

**Appendix A, Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Walkways between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
2	111	111.23	Both	0.23
2	111.3	111.31	Both	0.01
2	11.31	11.32	South	0.01
2	111.5	111.55	Both	0.05
2	111.51	111.55	South	0.04
2	112.1	112.2	Both	0.10
2	112.1	112.2	North	0.10
2	112.76	112.99	Both	0.23
2	113.28	113.43	Both	0.15
2	113.28	113.43	North	0.15
2	113.7	113.76	Both	0.06
2	113.7	113.76	North	0.06
2	115.27	115.37	Both	0.10
2	115.27	115.37	South	0.10
2	115.76	115.86	Both	0.10
2	115.76	115.86	South	0.10
2	115.97	116.03	Both	0.06
2	116.26	116.31	Both	0.05
2	117.60	118.26	Both	0.66
2	118.36	118.4	North	0.04
2	118.6	118.65	North	0.05
2	118.8	118.85	North	0.05
2	118.36	118.95	Both	0.59
2	119.2	119.25	Both	0.05
2	119.2	119.25	South	0.05
2	120.1	120.2	Both	0.10
2	120.1	120.2	South	0.10
2	121.3	121.6	Both	0.30
2	121.3	121.6	South	0.30
2	121.7	121.82	Both	0.12
2	121.7	121.82	South	0.12
2	122.05	122.25	Both	0.20

**Appendix A, Locations vvnere Deviations to General Order 118-A, Standard 1
Are Granted For Walkways between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
2	122.35	122.4	Both	0.05
2	122.35	122.4	North	0.05
2	122.55	122.75	Both	0.20
2	123.05	123.15	Both	0.10
2	123.5	123.9	South	0.40
2	123.52	124.28	Both	0.76
2	124.15	124.28	South	0.13
2	123.5	124.28	North	0.78
2	124.6	124.77	Both	0.17
2	125.25	125.43	Both	0.18
2	125.6	125.62	Both	0.02
2	125.6	125.62	South	0.02
2	125.7	125.75	South	0.05
2	125.7	125.8	Both	0.10
2	125.75	125.8	South	0.05
2	126.6	127	Both	0.40
2	127.25	127.5	Both	0.25
2	127.55	127.9	Both	0.35
2	127.55	127.9	North	0.35
2	128.06	128.74	Both	0.68
2	129	129.01	Both	0.01
2	129.95	130.1	Both	0.15
2	130.3	130.31	Both	0.01
2	131	131.3	Both	0.30
2	131.49	131.75	Both	0.26
2	131.9	132.2	Both	0.30
2	131.9	132.2	South	0.30
2	132.45	132.5	Both	0.05
2	132.98	133.22	Both	0.24
2	133.37	133.39	Both	0.02
2	133.4	133.42	Both	0.02
2	133.95	133.99	Both	0.04

**Appendix A, Locations Where Deviations to General Order 118-A, Standard 1
Are Granted For Walkways between Rocklin and Colfax on Main Tracks 1 And 2.**

Track	Deviation Boundaries		Side	Distance
	MP	MP		
2	135	135.Q1	Both	0.01
2	136.25	136.72	North	0.47
2	136.27	136.82	Both	0.55
2	136.72	136.82	North	0.10
2	137.4	137.55	Both	0.15
2	137.4	137.55	South	0.15
2	137.6	137.63	Both	0.03
2	137.6	137.63	South	0.03
2	137.8	137.85	South	0.05
2	137.8	138	Both	0.20
2	138.26	138.27	Both	0.01
2	138.37	138.55	Both	0.18
2	138.75	138.76	Both	0.01
2	139.1	139.11	Both	0.01
2	139.75	139.85	North	0.10
2	139.73	140.1	Both	0.37
2	139.9	140.1	South	0.20

(END OF APPENDIX A)

Resolution ROSB-003
PWK/sdr

DRAFT

Appendix 8
Resolution ROSB-003

Draft Operating Rules to Govern Train and Engine Employees
With Duties on Walkways between Mileposts 110.5 and 141.8
Rocklin to Colfax on Main Tracks 1 and 2.

Appendix B, Resolution ROSB-003, Draft Operating Rules to Govern Train and Engine Employees with Duties on WalkiVays betiYeen Mileposts 110.5 and 141.8, Rocklin to Cdfax on Main Tracks 1 And 2.

ROSEVILLE Subdivision General Order No.

Purpose:

SI-07: Add new detector symbol () to show the location of a Wheel Down Indicator. Wheel Down Indicator requirements provided as footnote to the detector title.

SI-07 TITLE 13 TRACK DETECTOR DETECTORS
Revised entire cell to read:

Table with 7 columns: Symbol, Milepost, Track, Symbol, Milepost, Track, Symbol. It lists various detector symbols and their corresponding mileposts and track locations, such as TRK2 0, TRK1 (II), TRK1 (III), etc.

Add the following in a footnote to the detector title:
When a wheel down indicator is detected by a track side indicator, stop the train as soon as possible consistent with train handling techniques that will minimize train delay.
For crew: DO NOT WALK UNDER. Immediately contact the railroad pilot who will notify your team to respond to the derailed wheel.

SI-11) MISC. INSTRUCTIONS

- When train inspection required between MP 110.5 and MP 141.0 on either track but WalkiVays conditions may not allow train to be safely inspected, the following instructions must be followed:
1. Determine safest side of train to perform the inspection.
 2. If at any point during the inspection it is determined that the opposite side would be the safest route, employee may crossover and continue the inspection.
 3. If employee determines that a walking inspection of the train may not be performed or completed safely, contact the dispatcher for further instructions.

(END OF APPENDIX B)

Appendix C
Resolution ROSB-003

Milepost Locations of Tunnels between Rocklin and Colfax
On Main Tracks 1 and 2.*

* These tunnel areas are not part of deviation request and continue to be subject to the provisions for tunnels as provided in General Orders 118-A and 26-D. and as discussed in this resolution.

Appendix C, Resolution ROSB-003, Milepost Locations of Tunnels between Rocklin and Colfax On Main Tracks 1 and 2."

Boundaries		Track	Tunnel identification and Description	Distance
MP	MP			
120.70	120.89	1	CLTU-1000 [2 Tracks] TUNNEL #18	0.19
114.16	114.52	2	CLTU-1454,CLTU-451 [NO 2] TUNNEL #15	0.36
114.72	114.87	2	CLTU-778 [NO 2] TUNNEL #16	0.15
117.29	117.60	2	CLTU-996,CLTU-652 [NO 2] TUNNEL #17	0.31
120.70	120.89	2	CLTU-1000 [2 Tracks] TUNNEL #18	0.19
123.28	123.52	2	SLTU-1202,SSTU-46 [NO 2] TUNNEL #20	0.24
124.77	125.00	2	CLTU-500,SSTU-96,CLTU-200,SSTU-360,CLTU-55 [NO 2] TUNNEL #21	0.23
131.30	131.49	2	CLTU-55,SSTU-147,SLTU-679,SSTU-42,CLTU-62 [NO 2] TUNNEL #22	0.19
132.82	132.98	2	CLTU-798,CLTU-46 (NO 2) TUNNEL #23	0.16
134.04	134.10	2	CLTU-301 [NO 2] TUNNEL #24	0.06
133.22	133.37	2	CLTU-772 [NO 2] TUNNEL #25	0.15
133.39	133.42	2	CLTU-150 [NO 2] TUNNEL #26	0.03
133.82	133.95	2	CLTU-60,TCTU-377,CLTU-150,TCTU-100 [NO 2] TUNNEL #27	0.13
135.01	135.62	2	CLTU-3209 [NO 2] TUNNEL #28	0.61
136.08	136.27	2	CLTU-130,TCTU-736,CLTU-142 [NO 2] TUNNEL #29	0.19
138.81	138.96	2	CLTU-780 [NO 2] TUNNEL #30	0.15
139.30	139.38	2	SLTU-444 [NO 2] TUNNEL #31	0.08
139.58	139.73	2	CLTU-769 [NO 2] TUNNEL #32	0.15

(END OF APPENDIX C)

* These tunnel areas are not part of deviation request and continue to be subject to the provisions for tunnels as provided in General Orders 118-A and 26-D, and as discussed in this resolution.

