UNION PACIFIC RAILROAD COMPANY

DAVID T. WICKERSHAM
Chief Engineer MofW- West

10031 Foothills Blvd.
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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 12'h Street, Suite 4
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be: Shane Keller
David Connell
John Huddleston
David Pickett

PROPOSED GENERAL ORDER UNO N

PAC I FIC RAILROAD COMPANY

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

ROSEVILLE AREA TIMETABLE NO. 5

EFFECTIVE AUGUST 24, 2009

*** ROSEVILLE SUBDIVI S ON GENERAL ORDER NO. xx ***

PURPOSE:

SI-07: Nel·l Wheel Dmm Indicators added bet1 een !Iorden and Shed 10.

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

SI-07 ITEt·l 13 TRAIN DEFECT DETECTORS

Add \•lheel Dom Indicators (·) bet1-1een Norden and Shed 10. \"lith these and previous changes, revise the entire Train Defect Detector cell to read:

%	237.8	TRK2	(fl)	237.8	TRK1	%	232.8	
&	229.7	**	%	227.9	TRK1	(f!)	221.7	
%	217.8		%	210.5		(fll	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	TRKl
%	145.5	TRK2	%	143.3	TRK1	&-	140.0	TRK2
%	139.2	TRK2	%	138.5	TRKl	%	138.4	TRK1
(·)	137.6	TRK2	%	136.4	TRK2	(*)	136.3	TRK1
(*)	134.7	TRKl	(*)	134.4	TRK2	(*)	133.6	TRK2
(*)	133.3	TRKl	(*)	132.4	TRK2	%	132.4	TRK1
(i)	131.7	TRKl	(*)	131.1	TRKl	(fl)	130.8	TRK2
(*)	130.7	TRK2	&-	129.8	TRK2	%	127.5	TRK2
%	127.4	TRKl	(*)	126.5	TRK2	(*)	125.8	TRKl
(·)	124.4	TRK1	(*)	122.7	TRK2	%	122.5	TRK1
%	121.5	TRK2	(*)	118.7	TRKl	(*)	118.3	TRK2
%	117.7	TRK2	(*)	116.9	TRK2	(*)	116.7	TRK1
(*)	115.4	TRK2	%	115.4	TRKl	(*)	114.1	TRK1
(*)	113.6	TRK2	(*)	112.9	TRKl	(fl)	112.2	TRK2
(·)	111.9	TRK2	!Ill	111.9	TRKl	&	111.0	TRK2*

Add:

Symbol (•) represents a \·lheel DOI·tn Indicator. \·lhen a 11heel d01-m is detected by a track side indicator, stop the train as soon as possible consistent 1-1ith train handling techniques that Nill minimize in train forces. DO NOT \·IALK 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 1-1arning from these detectors must use Track fll bet1·1een Bo tman and Colfax.

COLFAX: \"lestward trains handling doublestack cars loaded t1·1o containers high, or car kinds M3X and M3Y (tri-level autoracks) must operate ONLY on Track 1l bet1-1een Colfax and Bo - man.
BOl·ll·IAN: Easbtard trains handling doublestack cars loaded bto containers high, or car kinds M3X and M3Y (tri-level autoracks) must operate ONLY on Track fll between Bo1-lman and Colfax.

* Protects Tunnel 17 MP 117.3: after proper inspection if crew cannot ascertain reason for detector activation, cre1-1 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 Ill) portion of the detector. Trains activating the Hot Wheel detector must stop immediately consistent 1·1ith 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, crel-1 member must notify Train Dispatcher who l·lill notify district 1-!TO/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 t-IP 192.5 on either track but 1·1alking conditions may not allo1 train to be safely inspected, the foll0I·Iing procedures must be foll01·1ed:

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 1·10uld 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

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

The Agenda draft of Resolution ROSB-003, adopted January 12, 2012, was originally appended to Union Pacific's September 17, 2012, letter here, but is not included in this Appendix. Instead the link to the final adopted Resolution ROSB-003 is included for convenience:
http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_RESOLUTION/159162.PDF