Union Pacific Rules

System Special Instructions

Effective November 19, 2024
Includes Updates as of February 5, 2025
PB-27015

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BUILDING AMERICA®

UNION PACIFIC RAILROAD

SYSTEM SPECIAL INSTRUCTIONS

Effective 0900 CDT Tuesday, November 19, 2024

E. J. Gehringer, Executive Vice President – Operations
J. W. Turner, Senior Vice President – Northern Region
S. L. Bybee, Senior Vice President – Southern Region
E. N. Batt, Vice President – HDC & Network Operations
C. L. Garrison, Vice President – Network Planning & Operations
R. S. Rohlfs, Vice President – Engineering
J. R. Givens, Vice President - Mechanical
R. N. Doerr, Vice President – Chief Safety Officer

This document supersedes:
Union Pacific Railroad
System Special Instructions
Effective July 11, 2023

Rule Updated Date

November 19, 2024

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SHL: Safety Hot Lines

SHL: Safety Hot Lines

NORTHERN REGION John Turner, Senior Vice President – Northern Region Drew Bokenkamp, Assistant Vice President – Track Maintenance			
Service Unit	**Safety Hot Line**	**General Manager**	**Headquarters**
Commuter Ops	See Local Instructions	Cerwin Fleming	Chicago, IL
Great Lakes	See Local Instructions	Nathan Hammond	Council Bluffs, IA
Chicago Complex	See Local Instructions	Cerwin Fleming	Northlake, IL
Great Plains	See Local Instructions	Andy La Force	North Platte, NE
Northern California	See Local Instructions	John Hughes	Roseville, CA
Pacific Northwest	See Local Instructions	Erik Erickson	Portland, OR
Rocky Mountain	See Local Instructions	Matthew Hall	Salt Lake City, UT

SOUTHERN REGION Steven Bybee, Senior Vice President – Southern Region Jacob Gilsdorf, Assistant Vice President – Track Maintenance			
Service Unit	**Safety Hot Line**	**General Manager**	**Headquarters**
Gulf Coast	See Local Instructions	Phillip Arnold	Livonia, LA
Houston Complex	See Local Instructions	Brian McGavock	Houston, TX
Heartland	See Local Instructions	Coleman Bell	Kansas City, MO
Mid - America	See Local Instructions	Andrew Steinkamp	N. Little Rock, AR
South Texas	See Local Instructions	Andrey Drozdov	San Antonio, TX
Los Angeles Complex	See Local Instructions	Ryan Curtis	West Colton, CA
Texoma	See Local Instructions	Shane Klein	Ft. Worth, TX

Operating Practices David O'Hara, Gen. Director – Operating Practices - Ph - 402-544-1844 Kevin Andersen, Sr. Director – Safety Field Operations (COMMIT) - Ph 402-544-6043

Jason Taullie, Director – Operating Practices & Rules - Ph 402-544-4931 Taylor Weisbeck, Sr. Director – Systems Quality Assurance - Ph 402-636-7188 Operating Practices Command Center (OPCC) - Ph - 402-544-6722 (To Contact OPCC via radio, dial code 984) (Contact OPCC via email: opcc@up.com)		
Rules Manager	**Phone Number**	**Timetable Area**
Robbie Goldman	801-414-9866	Chicago; Council Bluffs; Denver; Iowa; Kansas City; North Platte; Portland; Salt Lake City; St. Louis; Twin Cities.
Rob Hunter	909-239-1465	Dallas / Ft. Worth; Houston; Livonia; Los Angeles; North Little Rock; Roseville; Salina; San Antonio; Sunset.

For emergencies call RMCC: 1- 888 UPRR COP or 1-888-877-7267

Harriman or Spring Dispatching Centers: Safety Hot Line Numbers: 8-501-3666 and 800-262-0608

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INTRO: Introduction to Special Instructions

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The General Code of Operating Rules, Air Brake and Train Handling Rules, and Safety Rules apply system wide unless modified by System Special Instructions. Timetable subdivision special instructions apply on the subdivision listed.

Observe all slower speed restrictions. Examples include subdivision speed restrictions, mandatory directives, train consist speed restrictions, tons per operative brake restrictions, locomotive maximum speed, etc.

When operating on any foreign railroad:

- Comply with all restrictions listed in UPRR System Special Instructions Item 14.
- Comply with the foreign railroad's requirements that are more restrictive.

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May 10, 2019

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ITEM 1: Time Comparison

Item 1: Time Comparison

Obtain Coordinated Universal Time (Greenwich Time) by calling:

- (303) 499-7111

Use the following table to convert from Coordinated Universal Time:

FROM THE SECOND SUNDAY IN MARCH UNTIL THE FIRST SUNDAY IN NOVEMBER, CONVERT TO:	BY SUBTRACTING:	FROM THE FIRST SUNDAY IN NOVEMBER UNTIL THE SECOND SUNDAY IN MARCH, CONVERT TO:	BY SUBTRACTING:
Central Daylight Saving Time	5 hours	Central Standard Time	6 hours
Mountain Daylight Saving Time	6 hours	Mountain Standard Time	7 hours
Pacific Daylight Saving Time	7 hours	Pacific Standard Time	8 hours

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October 21, 2021

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ITEM 2: Speed Restrictions

Item 2-A: Maximum Speeds: General

Part	Description	MPH
1	Key Trains (including trains with one or more PIH/TIH cars) Key Trains - Crude Oil / Key Trains - High Hazard Flammable Train (Operating within a High Threat Urban Area)	50 40
2	Moving against the current of traffic:	
	• Passenger trains	59
	• All other trains	49
3	Through dual control switch turnouts not connected to a siding	30
4	Through other turnouts not connected to a siding	15
5	Sidings:	
	• Sidings identified with a "**!**" symbol and connected turnouts: not to exceed permanent main track speed at that location	30
	• Other sidings and connected turnouts: not to exceed permanent main track speed at that location	20
6	Tracks other than main tracks and sidings	10
7	Balloon tracks & wye tracks, except those portions used as a main track or siding	5
8	Live rails of track scales	5
9	Designated locomotive servicing facilities and car repair facilities	5
10	Engines with cars	70
	• GE AC Locomotives	75
	• Engines UP 844, 949, 951, B963, 3985, 4014, 6936, Amtrak, and other passenger engines	82
	• SW-1500	50
11	A multiple-unit engine controlled from other than the leading unit	30
12	Engines running light	70

	• More than eight locomotives	45
	• When speed cannot be controlled using dynamic brake	45
	• When speed cannot be controlled using dynamic brake on descending grade over 1 %	25
13	Military trains:	
	• Loaded	50
	• Empty	60
	Exception: Loaded military train that exceeds 60 cars (Does not Apply to military trains consisting entirely of intermodal equipment.)	45
14	Movements over piston type (Dowty) retarders	6

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May 5, 2021

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Item 2-B: Maximum Speeds: Cars

A. Use the train consist to identify the maximum train speed. It shows the maximum speed for each car and the maximum train speed, which is the lowest maximum speed of any car entrained. If a car that restricts the maximum train consist speed is set out at an unscheduled location, operate at the lowest maximum speed of cars left in the train.

B. The maximum speed for cars is shown on the train consist. When train consist is not available:

- The maximum speed is 60 MPH, unless the table in Item 2-B shows a different speed.
  or
- If the equipment is 100% passenger car equipment, the train may operate at maximum passenger speed, unless otherwise restricted.

C. Use the speeds listed in the table as a backup summary:

- When a train consist is not available.
- When a pickup is made enroute without car speed information.
  or
- For foreign railroads operating on UPRR.

D. Refer to Item 2-C for MW and Mechanical equipment speeds.

Maximum Speeds Cars		
Part	**Description**	**MPH**
1	Loaded ordinary flat cars	50
	Exceptions:	

	(a) Flat cars loaded with auto frames; flat cars UP 904150-904167 loaded with locomotive traction motors	60
	(b) Cars in series TBCX 7471-7481, TBCX 76700-76707, and specially equipped flat cars carrying airplane and rocket equipment	70
2	Bulkhead flat cars:	
	• Loaded	50
	• Empty cars equipped with constant contact side bearings	50
	• Empty	40
3	Centerbeam flat cars:	
	• Loaded with plywood or lumber	60
	• Loaded with other commodities	50
	• Empty	50
4	Anode flat cars:	
	• Loaded	50
	• Empty cars equipped with constant contact side bearings	50
	• Empty	40
5	Heavy-Duty Flat Cars, 8 axles or more:	
	8 to 14 axles:	
	• Loaded or empty	45
	16 to 24 axles:	
	• Loaded	25
	• Empty	45
	36 axles:	
	• Loaded	15
	• Empty	25
6	TOFC or COFC flat cars or other intermodal equipment:	
	• Loaded	70
	• Empty	60
	Exceptions:	
	(a) Loaded multi-platform/unit/well cars	75
	(b) Empty well cars and empty articulated spine cars for carrying trailers and/or containers	70
	(c) Intermodal flat cars made from box cars in series SP 520583-520727, CP 520350-520386 and empty NS 157000-157849	50
	(d) Loaded intermodal flat cars made from box cars in series NS 157000-157849	60
	(e) Flat cars in series DRGW 4015-4071, DRGW 21502-21547, DRGW 21700-21759, SP 513153-515761, SP 518013-518180, SP 599702-599888, SSW 84894, and SSW 85401-85492:	

	• Loaded	50
	• Empty	45
7	Open-top hopper cars:	
	• Loaded	60
	• Loaded with coal	50
	• Empty	50
	• Loaded cars in series CTRN 601001 – 601600 and 602001 - 602920 unless train consist indicates a higher speed	40
	Exception:	
	Empty cars having constant contact side bearings or center plate extension pads	60
8	Gondola cars	50
	Exceptions:	
	(a) Empty car in series EJE 4000-4549, EJE 4800-4874, CR 607000-607480, UP 66800-67649, SP 337700-338099, MRL 38000-38071 and MRL 80511-81332 except if equipped with constant contact side bearings	40
	(b) Loaded cars in series UP 903084-903094; cars with initials UP, WP, MP or GONX loaded with aluminum ingots and empty gondolas having constant contact side bearings or center plate extension pads	60
	(c) Covered coil gondolas equipped with constant contact side bearings	70
9	Gondola or open-top hopper cars used to haul ore	50
10	Covered hopper cars in car series TGSX 443401-443700 and CGAX 9001-9505	50
11	Tank cars:	
	• Loaded	60
	• Empty	50
	Exception:	
	Loaded 4-axle tank cars with 125 ton trucks designed for maximum gross weight of 315,000 lbs	50
12	Autoracks (Multilevels)	70
13	Mechanical reefers	70
14	Shoving Platforms (Cabooses)	70
15	Business cars and AMTK 70000 and AMTK 71000 series	79
16	Cars in ANSX series 800420-800421, 800425-800427, 800430-800433, and 800440-800444	50
17	Roadrailer ™ cars	70

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Item 2-C: Maximum Speeds: Maintenance of Way and Mechanical Equipment

The maximum speed for cars is 60 MPH unless the train consist shows a different speed. Use the speeds listed below as a backup summary when a train consist is not available.

Maintenance of Way and Mechanical Equipment		
Part	**Description**	**MPH**
1	Continuous welded or jointed rail trains:	
	• Loaded	40
	• Empty	50
	Loram rail train (loaded or empty)	50
2	Cars in series RGAX 25000-25049	40
3	MPX cars (excluding outfit cars and locomotive cranes), loaded or empty air dump cars, SPMW 7721-7799, RGAX 3900-3923, SPMW 4111-4147, 5101-5121, 5128-5191, 5202, 5218-5291, 5835, 6401-6438, and SSW 94500-94520	35
	Exception: Series Series MPX 27028-27060, 30000-30014 and 50001-50014	50
4	Outfit cars	40
	Exception: After mechanical department approval following inspection of cars	50
5	Four-axle scale test cars	50
	Two-axle scale test cars	30
6	Snow plows, or locomotive cranes on their own wheels; foreign line or privately-owned derricks, cranes, or other similar equipment on their own wheels on revenue billing (unless further restricted on waybill or train consist); or company-owned cranes loaded on flat cars	30
	Exception: Cranes moved on flat cars in series MP 17000-17057 and MP 50064	50
7	Self-propelled cranes, pile drivers, and similar equipment moving under their own power or TRT 909	30
8	Hy-rail equipped Holmes, Pettibone, and similar type cranes, and wheel changers	25
9	Gondola or open top hoppers used to carry ballast	50
	Exception: Loaded UP 901710-901830, UP 919000-920216 & HZGX 7000-7700	60
10	Jordan spreaders (in all plowing operations with a MW Supervisor present):	
	• In snow plowing operations or traveling in either direction with wings retracted and locked	45
	• In snow plowing operations with wings extended	35
	• In other plowing operations	25
	• With one wing extended	15
	When moving in reverse direction, wings should be fully retracted. When there is no MW Supervisor present, be governed by Item 3.3 Jordan Spreader (entrained) rules.	

11	Engines handling ITW (in-track welder) work equipment, Loram rail train or TRT 909	50
12	Wrecking derrick consists are assigned to locations shown below. When operating derrick consists, the equipment having the lowest authorized speed restricts the maximum authorized speed for that consist.	
Assigned Location	**Consist Contains Equipment:**	**MPH**
Ogden	UP 905275, 905280, 908455	50
Green River	UP 903047, 909317, 906209, 904206, 904703	60
	UP 905269, 905273, 905274	50
Denver	RGAX 030, 3330	35
Hinkle	UP 903050, 909351, 906203, 904294, 904295, 909355	60
Salt Lake	UP 903046, 904200, 904239, 906200, 906208, 909307, 909308	60
Stockton	UP 909313, 904301	60
	WPMW 796, 797	50
	UP 900310, TPX 14181	40
Portola	UP 903045, 904232, 904300, 909320	60
	WPMW 376, 378	50
North Little Rock	MP 15427, 3646, 15082, 517, 2909, 4324, MPX 251	60
	MP 2155, 3160, 15090	50
Roseville	SPMW 7113, 7184, 7185, 7071, 7055	45
	SPMW 7072, 7077, 7078	35

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May 10, 2019

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Item 2-D: Maximum Speeds: Hot Weather

During periods of extreme heat, conditions exist that could affect track structure. When advised by track bulletin that a Level 1 or 2 Heat Restriction is in effect, restrict train speed within the limits of the track bulletin as shown in the tables below.

Each platform/unit/well of an intermodal car is to be considered one car when calculating tons per car.

When not utilizing EMS and operating with a single distributed power consist located at the rear of the train, operate in independent mode with distributed power 1-3 throttle notches below the lead consist in power and 1-3 throttle positions above the lead consist in dynamic brake, except when cresting a grade.

When operating with an Energy Management System, utilize the Conditional Speed function to restrict speed as required and allow the system to operate as designed.

Note: Comply with specific train handling procedures when required by local instructions.

Maximum Speeds: Hot Weather	
Level 1 Heat Restriction:	**Restriction:**
Passenger trains, light engines, and freight trains averaging less than 90 tons per car /platform/unit/well.	No Additional Restrictions
Freight trains averaging 90 tons or more per car/platform/unit/well in signaled territory.	50 MPH

Level 2 Heat Restriction:	**Restriction**:
Chicago - All Metra trains. California - Metrolink, Pacific Surfliner, Capitol Corridor, Altamont Commuter Express (ACE), Caltrain and San Joaquin trains.	No Additional Restrictions
Passenger trains (except commuter trains listed above), light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	50 MPH
Freight trains averaging 90 tons or more per car/platform/unit/well.	40 MPH
Exceptions: When an exception to Item 2-D is indicated on the track bulletin or shown on the subdivision page, the above restrictions do not apply to freight trains and the appropriate exception listed below applies instead.	
Exception 1: All freight trains operating on the subdivision while heat restriction bulletin is in effect	30 MPH
Exception 2: All freight trains operating on the subdivision while heat restriction bulletin is in effect	Restricted speed, not exceeding 10 MPH

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Item 2-E: Maximum Speeds: Cold Weather

During periods of extreme cold, conditions exist that could affect track structure. When advised by track bulletin that a Cold Weather Restriction is in effect, restrict train speed within the limits of the track bulletin as shown in the table below.

Each platform/unit/well of an intermodal car is to be considered one car when calculating tons per car.

When operating with an Energy Management System, utilize the Conditional Speed function to restrict speed as required and allow the system to operate as designed.

Maximum Speeds: Cold Weather		
Cold Weather Restrictions	**Restriction**	
	Signaled Track	**Non-Signaled Track**
All Passenger trains, light engines, and freight trains averaging less than 90 tons per car/platform/unit/well.	No Restrictions	40 MPH
Freight trains averaging 90 tons or more per car/platform/unit/well.	40 MPH	40MPH

Rule Updated Date

January 13, 2022

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Item 2-F: Maximum Speeds: Tons Per Operative Brake (TPOB)

Freight trains must not exceed the speed specified in the tables below. If a subdivision special instruction specifies a higher or lower TPOB speed, be governed by that speed.

When using the following tables, round your train's TPOB up to the next whole number. For example, 100.1 TPOB becomes 101 TPOB.

The TPOB as shown on the train graph will be used to determine the maximum speed of the train. If the train graph for TPOB is unavailable, or train consist is changed enroute and a new train graph is not provided, the TPOB of the train will be computed by dividing the train's tonnage by the total number of operative brakes in the train. There is 1 brake per conventional car (See **Table C** for other car types).

Table A** applies to single well and/or multi-platform/unit/well trains with less than 5 conventional cars (do not count single unit well cars as conventional cars). **

Table B applies to all other freight trains.

Table C is used to determine the equivalent number of operative brakes for multi-platform/unit/well cars and for cars that are solid drawbar connected.

The following abbreviations are used in **Table A** and **Table B**:
MSS: Maximum Subdivision Speed NR: No Restriction

Table A** – Single Well and/or Multi-Platform/Unit/Well Trains with Less Than 5 Other Conventional Cars **	
T P O B	**Total number of platforms/units/wells & other cars**

	80 or less	81 to 110	111 to 140	141 or more
120 or less	NR	NR	NR	MSS minus 10 MPH
121 to 126	NR	NR	MSS minus 10 MPH	MSS minus 10 MPH
127 to 132	NR	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH
133 or more	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH	MSS minus 10 MPH

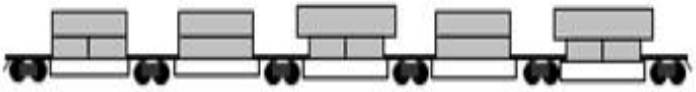
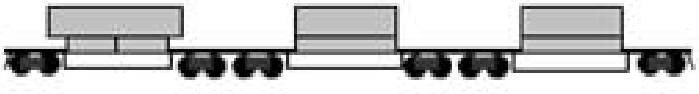
****** Does not apply to trains utilizing an operative PTC system within PTC territory.

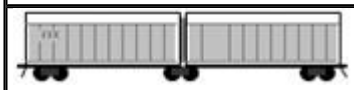
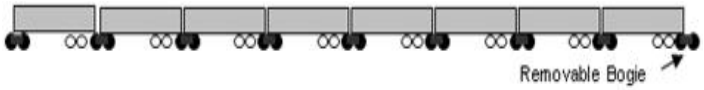
Table B – All Other Freight Trains Including Single Well and/or Multi-Platform/Unit/Well Trains with 5 or More Other Conventional Cars

T P O B	Maximum Speed	T P O B	Maximum Speed
100 or less	NR	111 to 120	MSS minus 10 MPH
101 to 110	MSS minus 5 MPH	Over 120	50 MPH

Note: Tables do not restrict train speed to below 50 MPH.

Use **Table C** to determine the equivalent number of operative brakes for multi-platform/unit/well cars and for cars that are solid drawbar or articulated connected and for other cars that are shown in the table .

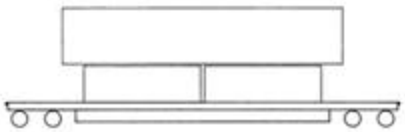
Table C - Equivalent Number of Operative Brakes		
	Type of Equipment (Car Code)	**Number of Operative Brakes**
1.	**Well cars** (Permanently connected solid drawbar or articulated equipment)	
	A.  Equipped with five wells: (A, E, D, C and B) (Articulated Equipment) (P5A)	3 brakes
	B.  Equipped with three wells (A, C and B) (3 Unit Articulated) (P3A)	2 brakes
	C.  Equipped with three units (A, C and B) solid drawbar connected (P3A)	3 brakes
		4 brakes

	D.  Equipped with four units(A, D, C and B) solid drawbar connected. (P4A)	
	E.  Equipped with five units (A, E, D, C and B) solid drawbar connected. (P5A)	5 brakes
2.	**Spine Cars** (Permanently connected multi-platform articulated equipment)	
	A.  Three platform articulated spine cars (P3 *)	2 brakes
	B.  Five platform articulated spine cars (P5 *) (* is a number)	3 brakes
3.	**TOFC and COFC flat cars** (Two-unit solid-drawbar connected long car)	
	A.  Two cars with solid-drawbar (P2 *) (* is a letter or number)	2 brakes
4.	**Cars for automobiles** (Permanently connected articulated equipment)	
	 Two unit articulated in series BTTX 880000-880419 and Automax (M* l or M* 3) (* is number of decks)	2 brakes
5.	**Superhopper car (C7T)**	3 brakes
6.	**Roadrailer™ cars** 	½ brake per van

The train consist shows each well (1A-E above) as a single car. The train consist shows other cars listed above (2 or 3) as one car. (See examples). When applying Item 2-D (Maximum Speed: Hot Weather) or Item 6 (Maximum Gross Weight Limitations) to calculate tons per platform/unit/well, use the total number of platforms/units/wells shown for cars listed in the above table. If it becomes necessary to cut the air brakes out on a car (control valve), count as 1 brake per Rules 30.2.2 & 32.7.4.

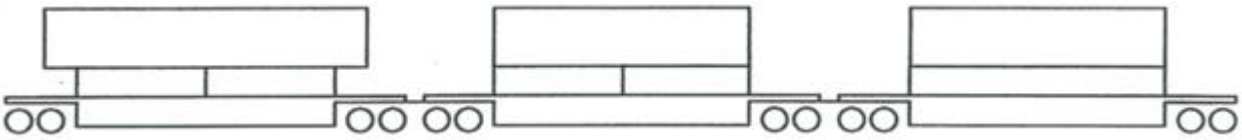
Examples of Train Consist:

Intermodal Car - Single Unit Well Car
(Considered a conventional car only for train makeup purposes)



34	DTTX	54000 LP1A	TOFC NZ020	05-801-96 RAMP	GLO2 IL UNION PAC
		70-MPH 80-TONS	70-FT 1-P	1.00-BRK 2273-ATONS 2283-AFT	
		SINGLE UNIT WELL CAR			
		NH DO NOT HUMP			
		DO NOT HUMP			
	NOSU	246829 LK10	MIXFRT NZ020		GLO2 IL APL LAN TRA
	TRLU	211890 LK10	MIXFRT NZ020		CPRS MINNEAPOLMN APL LAN TRA
	APHU	455705 LK50	MIXFRT NZ020		GLO2 IL APL LAN TRA

Intermodal Cars - Train Consist
Solid Drawbar Connected or Articulated Multi-Well Car

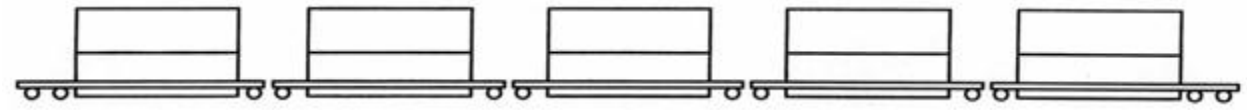


DTTX 427102 P3A SOLID DRAWBAR CONNECTED MULTI-WELL CAR

CONSISTS OF THE FOLLOWING 3 CARS

1	DTTA	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
		70-MPH 78-TONS	72-FT 1-P	3.00-BRK 78-ATONS 72-AFT	
		NH DO NOT HUMP			
		DO NOT HUMP			
	HLXU	511982 LK4E	MIXFRT JP017		ICTF CA HAPAG LLO AM
	HLXU	447026 LK40	MIXFRT JP017		ICTF CA HAPAG LLO AM
2	DTTC	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
		70-MPH 79-TONS	72-FT 1-P	0.00-BRK 157-ATONS 144-AFT	
		NH DO NOT HUMP			
		DO NOT HUMP			
	UESU	483829 LK50	MIXFRT JP017		ICTF CA HUB GROUP
	TRLU	402070 LK40	MIXFRT JP017		ICTF CA PACER GLO LO
3	DTTB	427102 LP1A	COFC JP017	41-801-96 RAMP	ICTF CA UNION PAC
		70-MPH 80-TONS	72-FT 1-P	0.00-BRK 237-ATONS 216-AFT	
		NH DO NOT HUMP			
		DO NOT HUMP			
	MOAU	705 LK1E	MIXFRT JP017		ICTF CA MITSUI OSK L
	FSCU	756099 LK40	MIXFRT JP017		ICTF CA HAPAG LLO AM
	MOFU	55161 LK40	MIXFRT JP017		ICTF CA MITSUI OSK L

Intermodal Cars - Train Consist
Articulated Multi-Well Car



DTTX 75292 LP5A ARTICULATED MULTI-WELL CAR

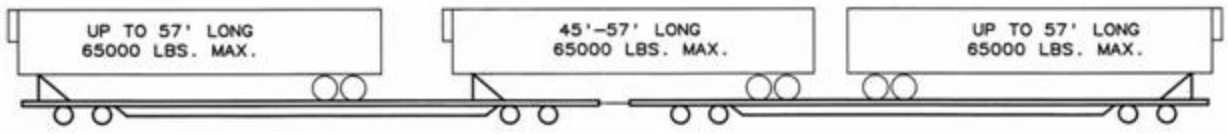
CONSISTS OF FOLLOWING 5 CARS

8	DTTA	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 61-TONS	62-FT 1-P	0.0-BRK 832-ATONS 1136-AFT		
		DO NOT HUMP				
	CSXU	683386 LK60	MIXFRT XG077		MARION	AR CSX INTERMOD
	EMHU	230112 LK70	MIXFRT XG077		MARION	AR LANDST LOGIS
9	DTTE	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 62-TONS	62-FT 1-P	0.0-BRK 894-ATONS 1198-AFT		
		DO NOT HUMP				
	EMPU	289223 LK60	MIXFRT XG077		MARION	AR CLARKE LOGIS
	STXU	240104 LK70	MIXFRT XG077		MARION	AR PROFES TRANS
10	DTTD	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 59-TONS	62-FT 1-P	0.0-BRK 953-ATONS 1260-AFT		
		DO NOT HUMP				
	APLU	492709 LK60	MIXFRT XG077		MARION	AR SHARP FRE SY
	EMHU	230602 LK70	MIXFRT XG077		MARION	AR LANDST LOGIS
11	DTTC	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 76-TONS	62-FT 1-P	0.0-BRK 1029-ATONS 1322-AFT		
		DO NOT HUMP				
	EMPU	681487 LK60	MIXFRT XG077		MARION	AR SCHNEI NAT O
	STXU	238934 LK70	MIXFRT XG077		MARION	AR SHARP FRE SY
12	DTTB	75292 LP1A	COFC XG077	05-701-96 RAMP	MARION	AR UNION PAC
		75-MPH 67-TONS	62-FT 1-P	0.0-BRK 1096-ATONS 1384-AFT		
		DO NOT HUMP				
	APLU	492264 LK60	MIXFRT XG077		MARION	AR SHARP FRE SY
	CSXU	934228 LK70	DRYGDS XG077		MARION	AR CSX INTERMOD

Intermodal Cars - Train Consist
Multi-Platform Spine Car

1	TTAX	553048 LP52	TOFC AX482	02-801-96 RAMP	PTLAREDO	TX UNION PAC
		70-MPH 218-TONS	291-FT 5-P	2.00-BRK 218-ATONS 291-AFT		
		MULTI-PLATFORM SPINE CAR				
		DO NOT HUMP				
	NONZ	57098 LV77	MIXFRT AX482		LAREDO	TX SWIFT INTERM
	EMHU	231127 LK70	CLNRS AX482		LAREDO	TX ALLIAN SHIPP
	NONZ	541025 LV66	MIXFRT AX482		LAREDO	TX SWIFT INTERM
	SNLZ	400592 LV77	CEREAL AX482		LAREDO	TX SCHNEI NAT C

Two-Unit Solid Drawbar Connected Long Car



17	TTEX	353221 LP28	TOFC RV185	01-800-96 RAMP	SPARKS	NV UNION PAC
		70-MPH 162-TONS	186-FT 2-P	2.00-BRK 1723-ATONS 2533-AFT		
		TWO-UNIT SOLID DRAWBAR CONNECTED LONG CAR				
		CC NO COUPLE TO 39FT. CAR				
		DO NOT HUMP				
	SNLZ	441782 LV77	MIXFRT RV185		SPARKS	NV SCHNEI NATIO
	SNLZ	450448 LV77	MIXFRT RV185		SPARKS	NV SCHNEI NATIO
	SNLZ	508399 LV78	AUTOPT RV185		SPARKS	NV SCHNEI NATIO

Rule Updated Date

May 5, 2021

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ITEM 3: Trains Handling - Company Equipment

Item 3: Trains Handling Engineering Equipment

1. Rail Trains

A Requirements for Movement of Rail Trains and Rail Train Equipment

. Equipment for handling continuous-welded rail (CWR), or continuous lengths of bolted rail, consists of permanently-coupled flat cars. Cars are locked together with pins, and built with slack resistors and do not have any slack compared to a typical freight car. Good train handling techniques must be used to minimize in-train forces as Rail Train couplers are blocked against slack and are highly susceptible to damage from rough handling.

1. Rail Train and Rail Train Equipment **MUST NOT** be cut off in motion or struck by any car moving under its own momentum.
2. When combined with other M/W Equipment:
   - An empty rail train must be placed on the rear of a train.
   - A loaded rail train must be placed at the head end of the train.
3. Empty Rail Trains on Manifest Trains:
   - Empty Rail Trains are to be placed on the rear of Manifest Trains.
   - When combining empty rail trains, no more than two (2) may be placed on the rear of a manifest train.
4. Loaded Rail Trains:
   - Must be moved as a unit train and are not to be moved in manifest service.
   - No more than one (1) loaded rail train in consist.

Loaded Loram Rail Trains (LR1-50, LR2-50, LR3-50)
When operating either Loaded or Empty Loram Trains, do not handle on any territory with curvature exceeding 16 degrees.

B Work Train Power Requirements for Unloading and Loading Rail Trains

· 1. Must have two operative locomotives placed back-to-back regardless of subdivisions or Tons Per Axle (TPA) requirements.

2. TPA and fuel conservation requirements apply while enroute.
   Exceptions:
   - When unloading and loading Rail Trains on Subdivisions identified with territory code "L" or "H", the train must have three operative locomotives.
   - During loading/unloading operations, additional locomotive(s) may be placed on line regardless of TPA requirements.

Note: The assigned M/W supervisor must accompany rail trains during loading and unloading operations. M/W supervisor is not required to accompany rail train movements to/from an unloading/loading site. When accompanied by a M/W supervisor, the train crew must be alert for any signal or instruction from the M/W supervisor. Before releasing a loaded rail train, the M/W supervisor must ensure all rails are properly secured and buffer cars are in place.

C. Buffer Cars

When rail train equipment is loaded with rail, a buffer car is used at each end. The buffer car must not be a car containing hazardous materials or an occupied caboose or camp car. The ends of the buffer car must be at least as tall as the top row of rail to restrain the rail. The "B" end of the buffer car must not be next to the equipment loaded with rail. However, the M/W supervisor may authorize loaded equipment to be operated without a buffer to/from an unloading /loading site.

Exceptions: Contract Trains with bulkhead doors on each end to restrain rail do not require buffer cars, (LR1-50, LR2-50, LR3-50).

D. Bad-ordered and/or Separated Rail Train Equipment

If any rail train or support equipment is bad-ordered and/or separated from their mated car/s, the remainder of the rail train or support equipment **MUST** stay (as a unit) at that location until the repair is complete. Bad order rail train equipment must be reported to MWOC as soon as possible via email, MWOC-BO-RAIL@UP.com. Email notification should include car ID, station where car is located and contact information for responsible repair party.

E. Rail Train Equipment:

Rail Train	Trace Car
C-50	UP913718
D-50	UP913732
E-50	UP913491
F-50	MP6852
G-50	UP913672
H-40	SPMW9013
I-40	SPMW9052
J-40	SPMW9028
L-40	UP904534
M-54	UP904596
N-40	UP913523
P-40	UP904697
Q-40	RGAX4650
R-40	RGAX4688
S-40	SSW97003
T-40	SPMW5396
U-48	SPMW6678
W-50	UP904735

Rail Unloaders (2 cars per set)
UP913524 / UP913525
UP913526 / UP913527
UP913528 / UP913529
UP913530 / UP913531
MP6859 / MP6861
RGAX4691 / RGAX4693
SPMW6681 / SPMW6682
SPMW6683 / SPMW6684
SPMW6685 / SPMW6686
UP913532 / UP913533
UP913534 / UP913535
UP913536 / UP913537

Rail Pickup Units (6 cars per set)
SPMW5401 / SPMW5397 / SPMW5403 / SPMW5398 / SPMW5399 / MP7510

Rail Pickup Units (8 cars per set)
MP6864 / MP6865 / MP6866 / MP6867 / MP6868 / MP7511 / MP7513 / UP904554

2. Wrecking Derricks, Locomotive Cranes and Similar Equipment

Secure booms on wrecking derricks, locomotive cranes and similar equipment. Booms must be trailing or detached unless they are in work train service. A mechanical employee will accompany the wrecking derrick. A crane operator will accompany locomotive cranes and must ride either:

- In the crane.
- On the train that has the crane entrained.
  or
- In a nearby vehicle having radio communications.

Inspect cranes at the following locations:

- Before leaving the initial terminal.
- Within 50 miles of the initial terminal.
- Within each 100 miles afterward.

During the inspection, ensure:

- Crane is headed in the right direction.
- Boom is properly secured.

- Equipment is being handled at the proper speed.

Booms must be disconnected on cranes, unless boom rest car specifically designed to enable the crane to move with the boom attached accompanies the crane. However, if the boom cannot be disconnected and cannot be in the trailing position, the train may be moved only as follows:

- Train management or an operating manager must authorize the movement.
- A crane operator must accompany the crane.
- Speed must not exceed:
  -- 15 MPH if the crane operator is not riding the crane.
  -- 30 MPH if the crane operator is riding the crane.
- Movement may only be made to the first location where it can be turned.

Placement in train:

- Place derricks and cranes within 10 cars of the engine and not ahead of more than 8000 tons.
- Place wrecking derrick consists as close to the rear of the train as possible and not ahead of more than 4000 tons.

The above restrictions do not apply to cranes loaded on flat cars, series MP 17000-17057, and MP 50064. These cranes may operate at 50 MPH. They may also operate with the boom in the non-trailing position, if properly secured.

3. Jordan Spreaders

Head Jordan Spreaders in the direction the train is moving, unless in work trains. Inspect equipment carefully before moving, and frequently en-route. When entrained:

- Operate with wings always retracted, locked and secured with chain or cable.
- Maximum speeds:
  –-35 MPH forward.
  –-15 MPH reverse.*
- Only move in reverse direction to the first location machine can be turned.*
- Must be handled on the rear of train.*
- When not engaged in snow removal operations in PTC territory, PTC must be utilized.

***Exception:** Upon instructions from the MW supervisor, Jordan Spreaders entrained in work trains may be moved in reverse, to the designated location, at the speed authorized by the MW supervisor.

4. Snow Plows

Handle one-way (multiple track) and wedge (single track) snow plows as follows:

- When deadheading the plow and snow is not above the top of the rail locate the plow in trailing position on the rear of freight trains.
- When deadheading the plow and snow is above the top of the rail, locate the plow in leading position immediately ahead of the lead locomotive.
- When plowing snow, locate the plow in leading position immediately ahead of the lead locomotive. Do not pull a train when plowing snow.
- Do not operate snow plows through drifts when trains are approaching or passing on an adjacent track.

- Raise flangers when passing over bridges, highway crossings, railroad crossings, track car set-offs, high guardrails, frogs, and switches, and when passing through interlocking limits.
- When not engaged in snow removal operations in PTC territory, PTC must be utilized.
- Handle rotary snow plows in special trains or on the rear of freight trains with rotary blades in the trailing position.
    - When handled in special train not engaged in snow removal operations, an Absolute Block must be established if rotary snow plow is handled ahead of locomotive when operating in PTC territory.
- In switching movements, handle a snow plow alone or with only one car.
- When not engaged in snow removal operations in PTC territory, PTC must be utilized.

5. Two-axle Scale Test Cars

Handle two-axle scale test cars in a train immediately ahead of the rear car. Scale test cars must not be placed next to any loaded car containing hazardous materials. Handle two-axle scale test cars in separate trains if moving more than one.

6. Passenger, Business, and Outfit Cars

Train management may specifically instruct handling passenger, business and outfit cars differently than listed below. Do not handle passenger, business, or outfit cars while switching. In freight trains, handle:

- Outfit cars on the head end.
- Passenger and business cars on the rear end.

When handling passenger or business cars on the rear end of a freight train, comply with the following:

- Limit bulk commodity unit trains and trains consisting entirely of multi-platform/unit/well cars to a maximum of three passenger and/or business cars.
- Limit all other trains to a maximum of two passenger and/or business cars. In addition, trains must not:
  - Contain more than 20 multilevel cars.
  - Exceed 6000 feet (including locomotives and passenger and/or business cars).

If train management authorizes handling passenger or business cars on the head end of a freight train, comply with the following:

- A maximum of five of these cars may be entrained.
- When handling two or more of these cars if trailing tonnage behind these cars exceeds 3500 tons, separate these cars from each other by at least two loaded freight cars.
- Handle business cars UPP 106 (Shoshone) UPP 115 (Selma), UPP 203 (Idaho), and UPP 420 (Fox River) only on the rear of freight trains.
- Handle business cars UPP 210, UPP 252, EMDX 820, and EMDX 840 (mobile laboratory cars) at any location in freight trains.

7. Ballast Cars with Air-operated Ballast Gates

The following cars are ballast cars equipped with air-operated gates and an independent ballast air system:

- UP 901660-901830.
- UP 901900-901949.

- UP 901991-901999.
- UP 919000-920311.

Do the following to make the ballast air system inoperative when these cars are loaded and in transit:

- Stop the air supply to the ballast air system.
- Bleed the ballast air system reservoirs by opening an air drain valve on the ballast reservoirs, located on the "A" end of the car.
- Leave the ballast air line angle cocks open.

Before using the ballast air system, close all ballast reservoir drain valves. Charge the system only during short work train moves to an unloading site and during actual ballast unloading.

8. Engines Handling ITW (In-Track Welder)

- Employee in charge may impose more restrictive speed restrictions.
- ITW work equipment is equipped with independent air brakes.
- Employees in charge will occupy ITW and have control of the air brakes and have radio communication with the engineer.
- ITW is towed with a solid hitch and must not be placed in a train or handled with any other equipment.
- ITW is equipped with marker on rear.

9. Unmanned Geometry Measurement System (UGMS) UP910701

- Do not kick or hump.
- Must be the head car in the train.

10. Scrap Material Recycling Team (SMRT)
The following sets of SMRT equipment (power unit, tool car, and maintenance car) must not be separated:

- UP 958200, UP 958201, and UP 958202;
- UP 958300, UP 958301, and UP 958302;
- UP 958400, UP 958401, and UP 958402;
- UP 958500, UP 958501, and UP 958501;
- UP 958600, UP 958601, and UP 958602;
- UP 958700, UP 958701, and UP 958702;
- UP 958800, UP 958801, and UP 958802.

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November 19, 2024

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ITEM 4: Locomotive Information

Item 4: Locomotive Information

To determine Equivalent Powered Axles (EPA) and Equivalent Dynamic Brake Axles (EDBA) for a locomotive consist, use the EPA and EDBA numbers indicated on the train consist. The following table is to be used only when a train consist is not available or when a locomotive consist is changed.

Note: An Equivalent Axle is a locomotive's tractive effort or braking effort compared to one standard axle which has 10,000 lbs. tractive effort or 10,000 lbs. braking effort.

As used in these tables, the following abbreviations apply:
- CTE = Controlled Tractive Effort (limits locomotive to maximum of 110,000 lbs. tractive effort when equipped).
- EPA = Equivalent Powered Axles.
- EDBA = Equivalent Dynamic Brake Axles.

DC Locomotives					
Model	EPA	EDBA	Model	EPA	EDBA
B23-7	4.5	4.2*	GP40-2	5.0	3.9#
B30-7	5.0	4.2*	GP50	6.5	4.1*
B36-7	5.0	4.2	GP60	8.0	5.4
B39-8; B40-8	7.8	5.2	SD38-2	5.4	5.7*#
C40-8; C40-8W	10.1	7.9	SD40-2; SD40N; SD30Eco	7.1	5.9*#
C41-8; C41-8W	10.1	7.9	SD45	7.0	5.9
C44-9; C44-9W	11.5	7.9	SD50	9.2	6.1
ES40DC	10.1	7.9	SD59MX	7.1	8.1
ES44DC	11.5	7.9	SD60; SD60M	9.9	8.1**
SW1500	3.7	0.0	SD70/SD70M	10.4	8.6
MP15	4.0	0.0	SD75	10.3	8.6
GP9	4.0	3.0*#	DDA40X	10.3	8.0
GP15-1	3.9	0.0	E9	3.5	6.2
GP22; GP22Eco	5.1	0.0	SL1 (Slug)	4.0	0.0
GP38; GP38-2	4.5	4.0*#	S4B (Slug)	4.0	0.0
GP39-2	4.5	3.8	S3-2B (Slug)	4.0	0.0
GP40	4.5	4.0*#	S6-1 (Slug)	5.0	0.0

*May not be equipped with dynamic brakes.

May be equipped with standard range dynamic brakes.

** UP 2100, 2156, 2157, 2159-2168, 2170-2214 have 6.0 EDBA.

Note: Traction motor cut out switches.

- DC locomotive traction motors must not be cut out to meet EPA or EDBA limitations. Traction motors may be cut out only when they are defective. Locomotives may be isolated/shut down to meet EPA or EDBA limitations.
- AC Locomotive traction motors 1, 2 & 3 may be cut out to meet EPA or EDBA limitations, traction motors 4, 5 & 6 may only be cut out when defective.
- A tag must be placed on the lead unit and on the unit having the cut out traction motor stating that the traction motor has been cut out for the purpose of meeting equivalent axle restrictions. This is to ensure subsequent crews are aware that all dynamic brakes on that locomotive are inoperative.

AC Locomotives			
GE Model	**Total # of Traction Motor(s) Cut Out**	**EPA**	**EDBA**
C44AC; C44/60AC; C44ACCCA	None	12.1	9.8
	1	11.0	8.0
	2	8.0	6.0
	3	6.0	5.0
C44AC (CP)	None	12.1	7.8
	1	11.0	7.0
	2	8.0	5.0
	3	6.0	4.0
C6044AC	None	12.1	11.7
	1	11.0	10.0
	2	8.0	6.0
	3	6.0	6.0
C44ACCTE; C45ACCTE; C45AH; C44ACM; ES44AC & ES44AH	None	12.1*	9.8
	1	11.0	8.0
	2	8.0	6.0
	3	6.0	5.0
C44ACCTE**; C45ACCTE**; C45AH**; C44ACM**	None	14.4*	9.8
	1	13.0	8.0
	2	10.0	6.0
	3	7.0	5.0
CW60AC	None	12.1	11.7
	1	12.0	10.0

	2	11.0	8.0
	3	8.0	6.0

*When in a remote consist operating in CTE mode, EPA is reduced to 11.0. Foreign line ES44AC and ES44AH locomotives may not be CTE capable.
**14.4 EPA ratings apply only when:

- Indicated on train consist.
- No DC locomotive(s) are used in power on train
- Train ID is not a "Z" symbol.

AC Locomotives			
EMD Model	**Truck Cut Out**	**EPA**	**EDBA**
SD70MAC	None	10.4	8.1
	#1	6.0	5.0
SD70ACe; SD70AH	None	12.0*	10.5
	#1	7.0	6.0
	#2	7.0	0.0
SD70ACe**; SD70AH**	None	14.4*	10.5
	#1	8.4	6.0
	#2	8.4	0.0
SD80MAC	None	13.0	10.0
	#1	7.0	5.0
	#2	7.0	0.0
SD9043AC	None	11.6	9.6
	#1	7.0	5.0
	#2	7.0	0.0
SD9043AC (CP)	None	12.0	9.0
	#1	9.0	5.0
	#2	9.0	0.0
	Total # of Traction Motor(s) Cut Out	**EPA**	**EDBA**
SD70AHT4 (UP 3000 - UP 3099)	None	12.0*	10.5
	1	12.0	8.8
	2	12.0	7.0
	3	9.0	5.2
SD70AHT4** (UP 3000 - UP 3099)	None	14.4*	10.5
	1	14.4	8.8
	2	14.4	7.0
	3	10.8	5.2

*When in a remote consist operating in CTE mode, EPA is reduced to 11.0. Foreign line ES44AC and ES44AH locomotives may not be CTE capable.
**14.4 EPA ratings apply only when:

- Indicated on train consist.
- No DC locomotive(s) are used in power on train.
- Train ID is not a "Z" symbol.

Note:
On AC locomotives, dynamic brakes and wheel slip protection are still operative with either traction motors or a truck cut out. Therefore, cutting out axles or a truck on AC locomotives to meet equivalent axle limitations is not a non-complying condition.

If unable to determine the model of a locomotive or its EPA and EDBA, type =po in the MyUP search bar and select Go. In the tab that opens, enter the unit initials and number, then select submit.

Dynamic Brakes are designated in the report as follows:

A - AC	S - Standard Range (Flat) = #
E - Extended Range (Flat)	**T** - Standard Range(Tapered) = #
F - Extended Range (Tapered)	**X** - Disconnected (No Dynamic Brake)
N - Not Equipped	**Z** - AC with Dynamic Braking to 0 MPH

A unit in the locomotive consist that is not working or bad ordered will have the values in the EA PW and EA DB columns enclosed in parenthesis, e.g., "(12.1)", or displayed as dashes, "----", and will not be calculated in the locomotive totals.

Rule Updated Date

May 5, 2021

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ITEM 5: Car Placement and Train Make-Up Restrictions

Item 5-A: Shipments of Excessive Height/Width and High Value

When train length and train make-up requirements permit, shipments that require close attention should be placed as close to the engine as possible, but no closer than the sixth car from an occupied engine or caboose. When positioning a shipment, each platform/unit/well of a multi-platform/unit/well car is to be considered as one car. Shipments that require special attention include: dimensional loads, excess high wide shipments, and unusual shipments (including those identified as high value on the consist).

The following must be considered when placing excessive dimension loads, unusual shipments that require close attention or high value loads:

- **Train Make-Up requirements take precedence.**
- Equipment requiring handling on the rear end only.

Excessive Dimension Load

The following classes of equipment will be covered by instructions from a Manager Clearances and/or a track bulletin concerning movement:

- Excessive dimension load.
  or
- Other unusual shipments that require close attention.

An **"Excessive Dimension Load"** is any car or shipment that is more than 12 feet wide. Local managers must request Train Management to schedule the Excessive Dimension Load to a specific train. The request must be submitted sufficiently in advance of operation on specified train to allow protection to be created. When scheduled to a specific train, the train dispatcher will issue a Form C track bulletin:

- To the train that will handle the excessive dimension load.
- To trains operating in the State of California affected by meet/pass restrictions with the train handling the excessive dimension load.

If the crew does not receive a track bulletin covering such shipments, notify the train dispatcher before moving the train. Crew members must conduct a job briefing with the train dispatcher before moving the train, reviewing all operating restrictions for their route.

When trains are rerouted or detoured, Train Management must ensure the modified schedule conforms to the protection notice routing. If the modified schedule does not conform to protection notice routing, the Clearance Team (800-544-0541) in Customer Care and Support must approve the modified routing and any applicable restriction(s) issued. DB 5 and protection notice routing must match.

Dimensional Load

A **"Dimensional Load"** is any car or shipment with a width of 11 feet 1 inches to 12 feet 0 inches, inclusive, as shown on the train consist. If the consist includes a dimensional load, crew members must conduct a job briefing with the train dispatcher before moving the train, reviewing all operating restrictions for their route.

All crew members must be aware of the presence of both excessive dimension loads and dimensional loads before movement of the train.

Speed Restricted Areas
Trains handling dimensional or excessive dimension loads must not exceed 30 mph until load is beyond restricted area. Train dispatcher may authorize normal speed when other trains are not in the area to be met or passed. Restricted areas will be listed in subdivision special instructions.

Special Handling Guidelines for High Wide or High Value Loads
High Wide or High Value Loads that require close attention must:

- Be inspected by a Mechanical representative at time of interchange or release from an industry to ensure loads are properly braced and secured for safe damage-free transportation.
- Be positioned in a train in accordance with system and subdivision special instructions.
- Not remain in a consist during switching operations, except when necessary to properly position the car in train.
- Not be kicked or humped.
- Not have other cars kicked or humped against these loads.
- Have air brake system charged and used when spotting/pulling these loads.
- Be set to a special hold track designated to hold/process such loads at terminals.

Rule Updated Date

May 10, 2022

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Item 5-B: System Train Make-Up Requirements

Train consist information will govern train make-up requirements.

TPA and trailing tonnage limits (including tonnage behind entrained helper) shown on train consist must not be exceeded. Tonnage handled by helper(s) must be deducted from total tonnage to determine trailing tonnage behind lead consist.

If an enroute locomotive failure causes the TPA listed on the train consist to be exceeded, train may continue provided maximum TPA for any train category on that route is not exceeded.

If train consist is not available, contact yardmaster or other authority to determine maximum TPA and coupler limits for route to be traversed.

If the coupler limit is exceeded, one or a combination of the following may be necessary:

- Road power rearranged (move units from the lead consist to the helper.)
- Add power to the helper.
- Add additional helper consist.
  or
- Reduce Tonnage.

Bulk Commodity Unit Trains

Bulk trains operating with one or more DC locomotive(s) must not exceed TPA for manifest trains on territories where bulk TPA is higher than manifest TPA.

TPA requirements will not apply to loaded bulk commodity unit trains operating with less than 3 locomotives on the following service units and their respective subdivisions:

- Great Plains (East of Cheyenne)
- Great Lakes
- Chicago Complex

1. Use the table below to determine general responsibility when a train does not meet train make-up requirements contained in Item 5-B.

Train Make-Up Does NOT Meet the Train Make-Up Requirements					
	Notify Train Dispatcher	Notify Yard Controller or Proper Authority	Maximum Speed		Correct Condition
Train was received from another railroad or error is discovered enroute.	Yes	Yes, if applicable.	Intermodal Trains 45 MPH	All Other Trains 40 MPH	As directed by the train dispatcher.
Other trains (i.e. home terminal).	NA	Yes	NA		Train is not to leave terminal until condition corrected.

Note: Trains (including trains received from another railroad) must meet train make-up requirements before entering code "H" or "L" territory**.**

2. Maximum Train Length Restrictions

2-A. Restrictions EAST of Picacho, AZ, Cheyenne, WY, and Denver, CO

Maximum Train Length	
Car Length Restriction	**Description**
A. 10,000 feet	Behind head end to EOT. Behind head end consist to head end of DP remote consist.
B. More than 12,000 feet	Trains exceeding 12,000 feet and total trailing tonnage exceeds 14,000 tons must operate with cut-in DP remote consist and rear DP remote consist. **Exception:** If train consists entirely of single well cars and/or multi-well cars listed in Item 2-F, Table C, Part 1, or is a bulk commodity unit train, Restriction C applies.
C. 10,001 to 15,000 feet	Train with cut-in DP remote consist and rear DP remote consist or EOT device. Cut-in DP remote consist must be equipped with EOT repeater when operating with EOT device. Distance between the head end and cut-in DP remote consist must not exceed 10,000 feet.
D. 15,001 to 18,000 feet	Train with entrained DP remote consists must not exceed 18,000 feet between rear of head end consist and head end of rear DP remote consist. Maximum distance between rear of any consist to the head end of the next remote consist must not exceed 8,500 feet. **Note:** If train has no rear DP remote consist, Restriction C applies.
Car Restriction	**Description**
E. Trains containing 60 or more Autoracks	Loaded autorack trains may contain more than 80 autoracks, but must not exceed 10,000 feet (car length). Up to 5 conventional cars may be placed on the head end of train. Empty trains must not exceed 10,000 feet. Trains with 60 or more loaded autoracks may be combined with other equipment under the following conditions: • Train contains no more than 80 loaded autoracks, • All loaded autoracks are placed at the rear of the train, and • Train does not exceed 10,000 feet. **Note:** A two-unit articulated autorack is considered two cars.
F. Trains containing 80 or more End of Car	Trains containing 80 or more cars equipped with EOCC must operate with entrained DP remote consist(s) as follows: • Less than/equal to 10,000 feet (car length), train must operate with at least one DP remote consist.

Cushioning Devices (EOCC)	• Greater than 10,000 feet (car length), train must operate with cut-in DP remote consist and rear DP remote consist. **Exception:** Autorack trains, Restriction E applies.
G. Military Trains	Loaded or empty military trains must not exceed 80 cars. **Exception:** Does not apply when train consists entirely of intermodal cars.

2-B. Restrictions WEST of Picacho, AZ, Cheyenne, WY, and Denver, CO

Maximum Train Length	
Car Length Restriction	**Description**
A. 8,500 feet	Behind head end consist to head end of DP remote consist.
B. Up to 10,000 feet	Behind head end to EOT. Behind head end consist to head end of DP remote consist when train consists entirely of single well cars and/or multi-well cars listed in Item 2-F, Table C, Part 1.
C. More than 12,000 feet	Trains exceeding 12,000 feet and total trailing tonnage exceeds 14,000 tons must operate with cut-in DP remote consist and rear DP remote consist. **Exception:** If train consists entirely of single well cars and/or multi-well cars listed in Item 2-F, Table C, Part 1, or is a bulk commodity unit train, Restriction D applies.
D. 10,001 to 15,000 feet	Train with cut-in DP remote consist and rear DP remote consist or EOT device. Cut-in DP remote consist must be equipped with EOT repeater when operating with EOT device. Distance between the head end and DP remote consist with repeater must not exceed 8,500 feet.
E. 15,001 to 18,000 feet	Train with entrained DP remote consists must not exceed 18,000 feet between rear of head end consist and head end of rear DP remote consist. Maximum distance between rear of any consist to the head end of the next remote consist must not exceed 6,000 feet. **Exception:** Bulk commodity unit trains must not exceed 8,500 feet between consists. **Note:** If train has no rear DP remote consist, Restriction D applies.
Car Restriction	**Description**
F. Trains containing 60 or more Autoracks	Loaded trains containing 60 or more loaded multilevel cars (autoracks) must not exceed a total of 80 cars, platforms, units or wells. Empty trains must not exceed 10,000 feet. **Note:** A two-unit articulated autorack is considered two cars.
G. Trains containing 80 or more End	Trains containing 80 or more cars equipped with EOCC must operate with entrained DP remote consist(s) as follows:

of Car Cushioning Devices (EOCC)	• Less than/equal to 8,500 feet (car length), train must operate with at least one DP remote consist. • Greater than 8,500 feet (car length) and less than/equal to 10,000 feet (car length), train must operate with cut-in DP remote consist with/without rear DP remote consist. • Greater than 10,000 feet (car length), train must operate with cut-in DP remote consist and rear DP remote consist. **Exception:** Autorack trains, Restriction F applies.
H. Military Trains	Loaded or empty military trains must not exceed 80 cars. **Exception:** Does not apply when train consists entirely of intermodal cars.

3. Maximum EPA/EDBA

Maximum EPA/EDBA						
Head End & Helper Consist EPA/EDBA Standard System Limits						
	Maximum EPA			**Maximum EDBA**		
Train Type	**Head end**	**Cut-in Helper**	**Rear Helper**	**Head end**	**Cut-in Helper**	**Rear Helper**
Intermodal Equipment, only	62	48**	28	29	40	28
Manifest Trains	52*	48**	28	29	40	28
Empty Bulk Commodity Unit Train (or Loaded with some empty cars)	52*	36***	28	33	40	28
Loaded Bulk Commodity Unit Train (no empty cars in train)	52*	60	28	33	40	28
Note: When EPA or EDBA limits are exceeded by less than one whole number, round down to the next whole number. Example: 48.4 EPA becomes 48 EPA.						

***** Limit head end EPA to 43 axles or a maximum of three AC locomotives when:

- Manifest train contains 80 or more cars equipped with End of Car Cushioning Devices (EOCC).
- Manifest train length exceeds 12,000 feet and total trailing tonnage exceeds 14,000 tons.
- Manifest or Bulk train operating on ascending grades exceeding 1.9%.

** Maximum EPA is 57 when Cut-in Helper contains locomotive(s) rated at 14.4 EPA.
*** Maximum EPA is 43 when Cut-in Helper contains locomotive(s) rated at 14.4 EPA.

4. Car Placement Restrictions

The addition of helper(s) may not be used to provide relief from the following car placement restrictions. Any placement errors will be indicated on the 'detailed' train consist. If no errors are indicated, the detailed train consist will govern train make-up and helper placement. Additional car placement restrictions are also listed in Item 5-C. Car definitions are located in Item 5-B, Part 6, A.

Car Placement Restrictions	
A. Trains Total Trailing Tonnage Exceeds 7,000 tons	Rear 1/4 of the train must not weigh more than 1/3 of the total weight (i.e. a 100 car train weighing 9000 tons must not have more than 3000 tons in the rear 25 cars. Round up other than whole numbers; a 102 car train weighing 9002 tons must not have more than 3001 tons in the rear 26 cars). **Exception:** This does not apply to: • Trains made up entirely of cars weighing a minimum of 45 tons each. • Solid loaded or solid empty unit bulk commodity trains. • Trains made up entirely of intermodal equipment.
B. Trains Total Trailing Tonnage Exceeds 5,500 tons but not more than 12,000 tons	Place cars listed below no closer than the 11th car/platform/unit/well behind the lead consist: • Car that is 80 feet or longer and weighs less than 45 tons. • Multi-platform/unit/well cars having one or more empty platforms, units or wells. • Autoracks weighing less than 60 tons and articulated autoracks weighing less than 120 tons, except when train consists entirely of autoracks.
C. Trains Total Trailing Tonnage Exceeds 12,000 tons	Place cars listed below no closer than the 16th car/platform/unit/well behind the lead consist: • Conventional car weighing less than 45 tons. • Car that is 80 feet or longer and weighs less than 45 tons. • Multi-platform/unit/well cars having one or more empty platforms, units, or wells. • Intermodal flatcar 80 feet or longer in length loaded with a single trailer or container. This also applies to two-unit, solid drawbar connected, twin flatcars (186 feet in total length) with a single trailer/container on either unit. • Two-unit solid drawbar-connected long cars (P2) if the total weight of the car is less than 120 tons. • Three and four-unit solid drawbar-connected multi-well cars (P3 / P4) with any well weighing less than 45 tons. • Autoracks weighing less than 60 tons and articulated autoracks weighing less than 120 tons, except when train consists entirely of autoracks.

	Note: A two unit articulated autorack is considered two cars.
D. Long Car/Short Car	1. Do not couple freight cars 80 feet or longer to any car 45 feet or shorter when weight behind the coupling would exceed 10,000 tons. 2. When operating WEST of Picacho, AZ, Cheyenne, WY, or Denver, CO, do not couple freight cars 80 feet or longer to any car 45 feet or shorter when weight behind the coupling would exceed 3,000 tons. However, the restrictions listed above **do not** apply to: • A locomotive crane 45 feet or shorter when coupled to a boom idler car 80 feet or longer. • A car listed in the train consist as 80 feet and the consist does not show a train placement error.
E. Rear End Only Equipment Note: Does not apply to trains consisting entirely of passenger equipment.	Entrain equipment tagged, stenciled, billed, or shown on the train consist as "Rear End Only" or "Rear Rider" as rear car of the train unless the mechanical department specifies that it must be the second car from the rear . This also includes the following equipment: • Five unit solid drawbar cars (in series CN 677000-677139). • Gondola cars in series AMGX that are solid-drawbar connected. On the train consist, the symbol 2-P on AMGX cars indicates 2 units that are solid drawbar connected. Passenger cars with initials MTDX must be placed in a train immediately ahead of the rear car of the train. When placed in a train with a rear helper, comply with the following: • The helper must be placed immediately ahead of this equipment • The helper must be considered a rear helper in regard to restricted car limits. One rear rider car allowed per train. Exception: MW may have a maximum of 2 cars on rear of train.
F. Heavy–Duty Flat Cars with 8 axles or more	When gross weight of car exceeds 240 tons, at least one empty car must be positioned ahead of and behind the car unless waived by Customer Care and Support and Engineering.
G. Entrained Locomotive(s)	When locomotives are positioned in rear of a train, refer to Rule 31.7.1.
H. Shoving Platforms	Move shoving platforms (cabooses), only at the rear of the train. This requirement does not apply when handling less than 20 cars and not exceeding 2500 tons.

	Any helper must be placed ahead of this equipment.
I. Autoracks/Flat Cars 90 Feet or Longer Weighing 80 Tons or Less	When combined with other equipment, continuous blocks of 20 or more autoracks/flat cars that are 90 feet or longer and weigh 80 tons or less must be placed within the rear 5,500 trailing tons of the train. **Exception:** Does not apply to intermodal trains. **Note:** Trains containing 60 or more autoracks are governed by Part 2-A, E, or Part 2-B, F; a two-unit articulated autorack is considered two cars.
J. Loaded Bulk Commodity Unit Trains	When train contains empty cars, the empty cars must be placed within the rear 25% of the train's total trailing tonnage. **Exception:** Does not apply to trains operating between the Powder River Basin and North Platte.

5. The following train makeup restrictions apply WEST of North Platte, Denver and El Paso.

Maximum Tonnage Behind Car		
Type of Car	**Maximum Tonnage**	
	Behind Car - 4500 Tons	**Behind Car - 5500 Tons**
A. Multi-platform Spine Car	One or more empty platforms	All platforms loaded
B. Multi-Platform/Well Cars; Single Unit Well Cars	One or more empty wells	
C. Two-unit Solid Drawbar Connected Long Car	One or more empty units	
D. Solid Drawbar Connected Multi-Unit/Well Car	Any well weighing less than 30 tons.	
Note: The tonnage behind the car must not exceed the listed tonnage.		

6. Train Make-up and Helper Requirements

A. The following cars must not be entrained within any restricted car limits:

- Articulated multi-platform/unit/well cars having one or more empty platforms, units or wells.
- Autoracks weighing less than 60 tons and articulated autoracks weighing less than 120 tons, except when train consists entirely of autoracks.
- Conventional car which weighs less than 45 tons. Does not apply to empty bulk commodity unit trains.
- Intermodal flatcar 80 feet or longer in length loaded with a single trailer or container. This also applies to two unit, solid drawbar connected, twin flatcars (186 feet in total length) with a single trailer/container on either unit.
- Car 45 feet or less coupled to a car 80 feet or longer regardless of weight (does not apply to multi-unit equipment unless individual units are 80 feet or longer).
- Two-unit solid drawbar-connected long cars (P2) if the total weight of the car is less than 120 tons.

- Three and four-unit solid drawbar-connected multi-well cars (P3 / P4) with any platform weighing less than 45 tons.
- Five-platform spine car with total car weight less than 175 tons.
- Three-platform spine car with total car weight less than 105 tons.

Equipment Definitions:

- Spine Car: Multi-platform articulated car.
- Well Car: Multi-well articulated car, solid drawbar connected well car, or single well car.
- Multi-unit Car: Multi-units permanently connected with solid drawbars. Units can be flat cars or wells.
- Conventional: A car such as a gondola, hopper, intermodal flat car, box car, bulkhead flat car or single well car.

B. Restricted equipment above in part "A" must be properly placed in the train. Use the tables below to determine proper placement. These restrictions are in addition to system train make-up requirements and car placement restrictions in Part 4.

Restricted Car Placement Behind Consist	
"L" Territories	
Tonnage behind lead locomotive consist and any entrained consist is:	**Place restricted equipment no closer behind lead or helper consist than the:**
5500 to 12000 tons	11th Car/Platform/Unit/Well
12001 tons and greater	16th Car/Platform/Unit/Well
"H" Territories	
Tonnage behind lead locomotive consist and any entrained consist is:	**Place restricted equipment no closer behind lead or helper consist than the:**
3500 to 4000 tons	6th Car/Platform/Unit/Well
4001 to 4500 tons	11th Car/Platform/Unit/Well
4501 tons and greater	16th Car/Platform/Unit/Well

Restricted Car Placement Ahead of Consist			
Other than "H" Territories			
If cut-in helper EPA is:	**Place restricted equipment no closer ahead of helper than the:**		
20 or Less	No Restriction		
21 to 34	6th car/platform/unit/well		
35 to 48	11th car/platform/unit/well		
If rear helper EPA is:	**Restricted tonnage ahead of helper**	**Minimum weight of any car /platform/unit/well within restricted tonnage ***	**Place restricted equipment no closer ahead of helper than the:**
10 or Less	No Restriction		
		45 - 56 Tons	6th car/platform/unit/well Exception: Conventional car

11 to 20	225 Tons		which weighs less than 45 tons does not apply.
		57 - 74 Tons	5th car/platform/unit/well
		75 - 112 Tons	4th car/platform unit/well
		113 Tons and above	3rd car/platform/unit/well
21 to 28	450 Tons	45 - 49 Tons	11th car/platform/unit/well
		50 - 56 Tons	10th car/platform/unit/well
		57 - 64 Tons	9th car/platform unit/well
		65 - 74 Tons	8th car/platform/unit/well
		75 - 89 Tons	7th car/platform/unit/well
		90 - 112 Tons	6th car/platform/unit/well
		113 Tons and above	5th car/platform unit/well
"H" Territories			
If cut-in helper EPA is:	**Place restricted equipment no closer ahead of helper than the:**		
20 or Less	No Restriction		
21 to 28	6th car/platform/unit/well		
29 to 36	11th car/platform/unit/well		
37 to 48	16th car/platform/unit/well		
If rear helper EPA is:	**Restricted tonnage ahead of helper**	**Minimum weight of any car /platform/unit/well within restricted tonnage ***	**Place restricted equipment no closer ahead of helper than the:**
10 or Less	No Restriction		
11 to 14	225 Tons	45 - 56 Tons	6th car/platform/unit/well Exception: Conventional car which weighs less than 45 tons does not apply
		57 - 74 Tons	5th car/platform/unit/well
		75 - 112 Tons	4th car/platform unit/well
		113 Tons and above	3rd car/platform/unit/well
15 to 19	450 Tons	45 - 49 Tons	11th car/platform/unit/well
		50 - 56 Tons	10th car/platform/unit/well
		57 - 64 Tons	9th car/platform unit/well
		65 - 74 Tons	8th car/platform/unit/well
		75 - 89 Tons	7th car/platform/unit/well
		90 - 112 Tons	6th car/platform/unit/well
		113 Tons and above	5th car/platform unit/well

20 to 28	675 Tons	45 - 48 Tons	16th car/platform/unit/well
		49 - 51 Tons	15th car/platform/unit/well
		52 - 56 Tons	14th car/platform/unit/well
		57 - 61 Tons	13th car/platform/unit/well
		62 - 67 Tons	12th car/platform/unit/well
		68 - 74 Tons	11th car/platform/unit/well
		75 - 84 Tons	10th car/platform/unit/well
		85 - 96 Tons	9th car/platform unit/well
		97 - 112 Tons	8th car/platform/unit/well
		113 - 134 Tons	7th car/platform/unit/well
		135 Tons and above	6th car/platform/unit/well

Application for Restricted Car Placement Ahead of Rear Helper: Comply with placement restriction for lowest car /platform/unit/well weight contained in restricted tonnage.
* Apply the placement restriction for 45 ton minimum weight when restricted tonnage contains fully loaded articulated multi-platform/unit/well cars with any platform/unit/well weighing less than 45 tons.

Example: Train is operating in Other Than "H" Territory with rear helper EPA of 24.2 and must comply with placement restrictions for rear helper with 21 to 28 EPA. The first three cars ahead of helper weigh 143 tons (429 tons total), and the fourth car weighs 87 tons for a total weight of 516 tons. The 87 ton car is the lowest car/platform/unit/well weight within the restricted tonnage (450 tons) ahead of the helper. 87 tons is located in the 75-89 ton weight restriction. Place restricted equipment no closer than 7th car/platform/unit/well ahead of helper.

Equipment Definitions:

Spine Car: Multi-platform articulated car.
Well Car: Multi-well articulated car, solid drawbar connected well car, or single well car.
Multi-unit Car: Multi-units permanently connected with solid drawbars. Units can be flat cars or wells.
Conventional: A car such as a gondola, hopper, intermodal flat car, box car, bulkhead flat car or single well car.

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Item 5-C: Coupler Limits with Helper(s), Helper Placement, and Train Power Balance

Trains that exceed the coupler limits for a territory must have locomotive(s) placed within or behind the trailing tonnage to avoid exceeding the designated coupler limit. When helper(s) will be cut-in, it is necessary to determine the proper balance between the lead power and the helper(s) for safe train operations.

The maximum number of Distributed Power remote consists is four.

Example:

'A Consist (Head End) - B Consist - C Consist - D Consist - E Consist (Rear Remote)'

Follow these steps to determine the correct helper placement, power balance and trailing tonnage for helper consists:

Step 1: Determine Total EPA: Add the EPA of the lead consist and all helper power together.
Use only the EPA that will actually be utilized on each locomotive:

EPA lead consist + EPA helper consist(s) = Total EPA

Step 2: Calculate the TPA: Divide the total tonnage of the train by the total EPA:

Total Train Tonnage ÷ Total EPA = TPA

Note: When calculating TPA, use the actual EPA number, do not round off. When the resulting TPA is not a whole number, round up to the next whole number.

Step 3: Determine placement of a cut-in helper:

When a helper is used, locomotives should be arranged to reduce tonnage handled by a single consist (i.e., use a 2 x 2 configuration rather than 3 x 1 when possible). When practicable, helper should not be cut-in unless distance behind head end consist and head end of DP remote consist will exceed 8,500 feet.

To determine the tonnage the helper must be placed ahead of, use one of the following formulas, 3-A, 3-B, or 3-C, as applicable. Place helper as close to the calculated position as possible.

A helper may be moved up to 5 cars/platforms/units/wells ahead of or behind the calculated position to comply with restricted car requirements in Item 5-B, Part 6 'Train Make-up and Helper Requirements' or Form 8620 Hazardous Materials Placement in Train requirements.

3-A: Single cut-in helper without rear helper (i.e., 2x2x0):

TPA* x *½ helper EPA = tonnage to be placed behind cut-in helper

Exception:
Trains with cut-in helper of 28 EPA or less are not required to use placement formula provided the cut-in helper:

- Is located within the rear 50% of the train's trailing tonnage when departing the train's originating terminal.
- Is located within the rear 80% of the train's trailing tonnage following enroute work events.
- Complies with hazardous materials placement requirements.
- Complies with train make-up requirements contained in Item 5-B.
- Complies with coupler limits.

3-B: Single cut-in helper + rear helper (i.e., 2x2x2):

(½ EPA cut-in helper + rear EPA)* x *TPA = tonnage to be placed behind cut-in helper

Exception:
Trains with cut-in helper of 28 EPA or less may be located at other than the calculated position provided the cut-in helper:

- Is located within the tonnage it is calculated to handle.
- Complies with hazardous materials placement requirements.
- Complies with train make-up requirements contained in Item 5-B.
- Complies with coupler limits.

To determine the tonnage range where the cut-in helper may be placed:

1) Determine calculated position of cut-in helper using the formula in step 3-B above.

   (1/2 EPA cut-in helper + rear EPA) x TPA = tonnage to be placed behind cut-in helper

2) Determine tons cut-in helper may be moved ahead of or behind the calculated position:

   ½ EPA cut-in helper x TPA = Tons cut-in helper may be moved from calculated position

   Example: 18,000 ton train is operating with lead consist of 36 EPA, single cut-in helper with 24 EPA and a rear helper with 24 EPA (total EPA of train is 84 EPA). The TPA is 215 and, using the formula in step 3-B, the calculated position of the cut-in helper is ahead of 7,740 tons. ½ EPA of the cut-in helper is 12.

   12 x 215 = 2,580 tons

   Cut-in helper may be moved 2,580 tons ahead of or behind the calculated position.

3-C: Two or more cut-in helpers:

- **Without rear helper (i.e., 2x2x2x0):**

  Start at the rear of the train and multiply the TPA by ½ the EPA of the first cut-in helper.

  TPA* x *½ EPA of first cut-in helper = tonnage to be placed behind first cut-in helper

- **With rear helper (i.e., 2x2x2x2):**

  Start at the rear of the train and add ½ the EPA of the first cut-in helper to EPA of the rear helper.

  Multiply this figure by the TPA.

  (½ EPA of first cut-in helper + rear helper EPA) x TPA = tonnage to be placed behind first cut-in helper

For each additional cut-in helper the following applies. Add ½ the EPA of the next helper to the total EPA of all previous helper consists. Multiply this figure by the TPA.

(½ EPA of next helper to be cut-in + EPA of all previous helper consists)* x *TPA = tonnage to be placed behind the helper consist being cut-in

Step 4: Determine that trailing tonnage handled by each consist is less than the coupler limits, by using the formulas below.

- **Tonnage pulled by lead consist:**
  Multiply the EPA of lead consist by the TPA. This figure must be less than the coupler limit for the territory. Applies to trains with cut-in helper(s), (with or without rear helper), and trains with rear only help.

  EPA of lead consist* x *TPA = tonnage pulled by lead consist
  (Must be less than coupler limit)

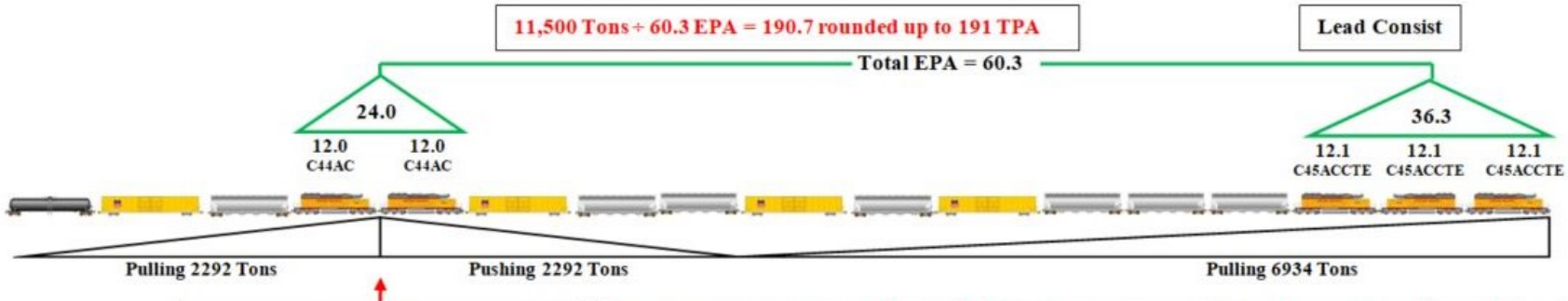
- **Tonnage pulled behind cut-in helper:**

  Multiply ½ the EPA of the helper by the TPA. This number must be less than the coupler limit for the territory.

  ½ EPA of helper* x *TPA = tonnage pulled by helper consist
  (Must be less than coupler limit)

See following pages for examples of trains with two or more cut-in helpers.

Example: **Item 5-C, Step 3-A: Single cut-in helper without rear helper**

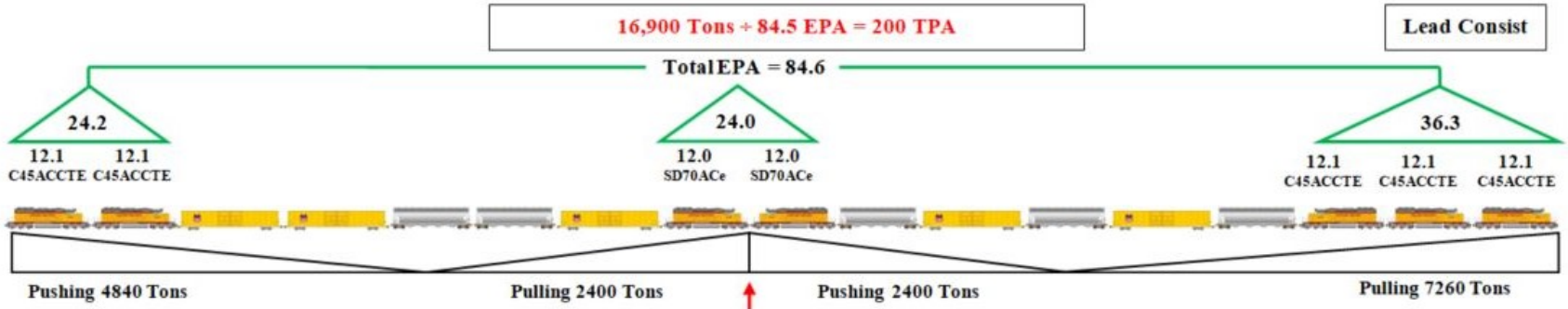


½ EPA cut-in helper x TPA =
12 x 191 = **2292 tons** behind cut-in helper

Exception: Trains with cut-in helper of 28 EPA or less are not required to use placement formula provided the cut-in helper:

- Is located within the rear 50% of the train's trailing tonnage when departing the train's originating terminal.
- Is located within the rear 80% of the train's trailing tonnage following enroute work events.
- Complies with restricted car requirements and hazardous materials placement requirements.
- Is located within 10,000 feet of the head end consist, or is located within 8,500 feet of the head end consist when operating WEST of Picacho, AZ, Cheyenne, WY, and Denver, CO.
  Using example above: 11500 ÷ 2 = 5750 tons
  No more than 5750 tons may be located behind cut-in helper

Example: **Item 5-C, Step 3-B: Single cut-in helper + rear helper**

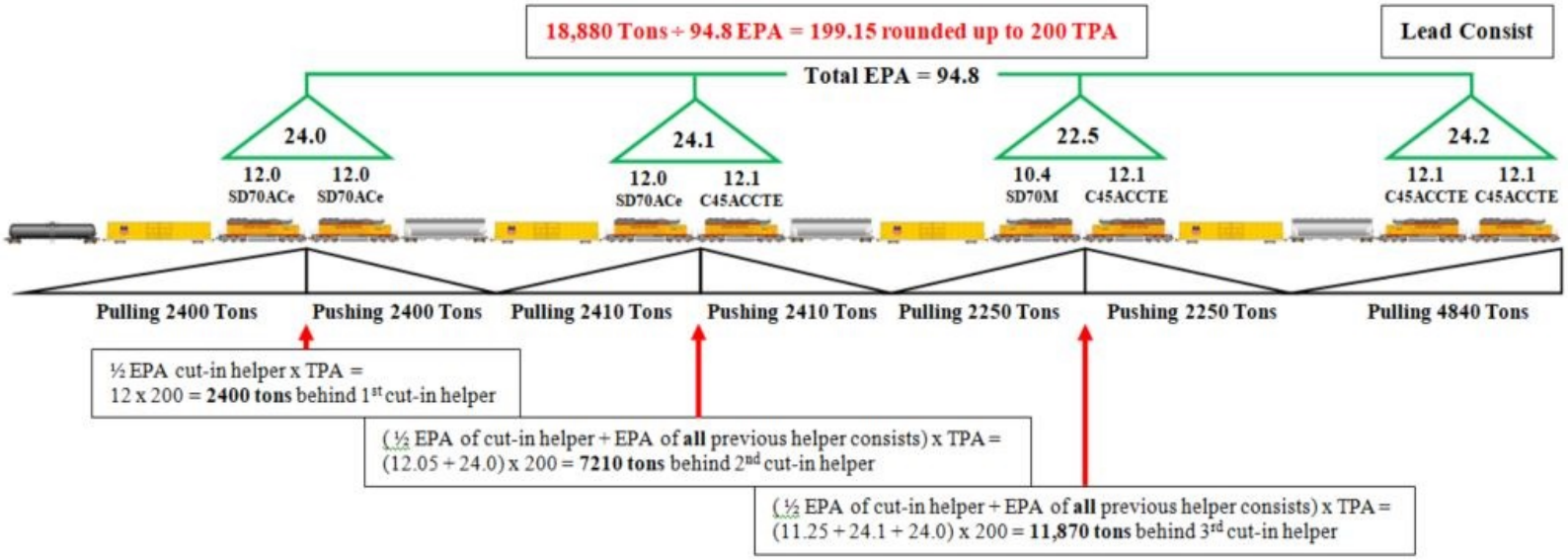


(½ EPA cut-in helper + rear helper EPA) x TPA =
(12 + 24.2) x 200 = **7240 tons behind cut-in helper**

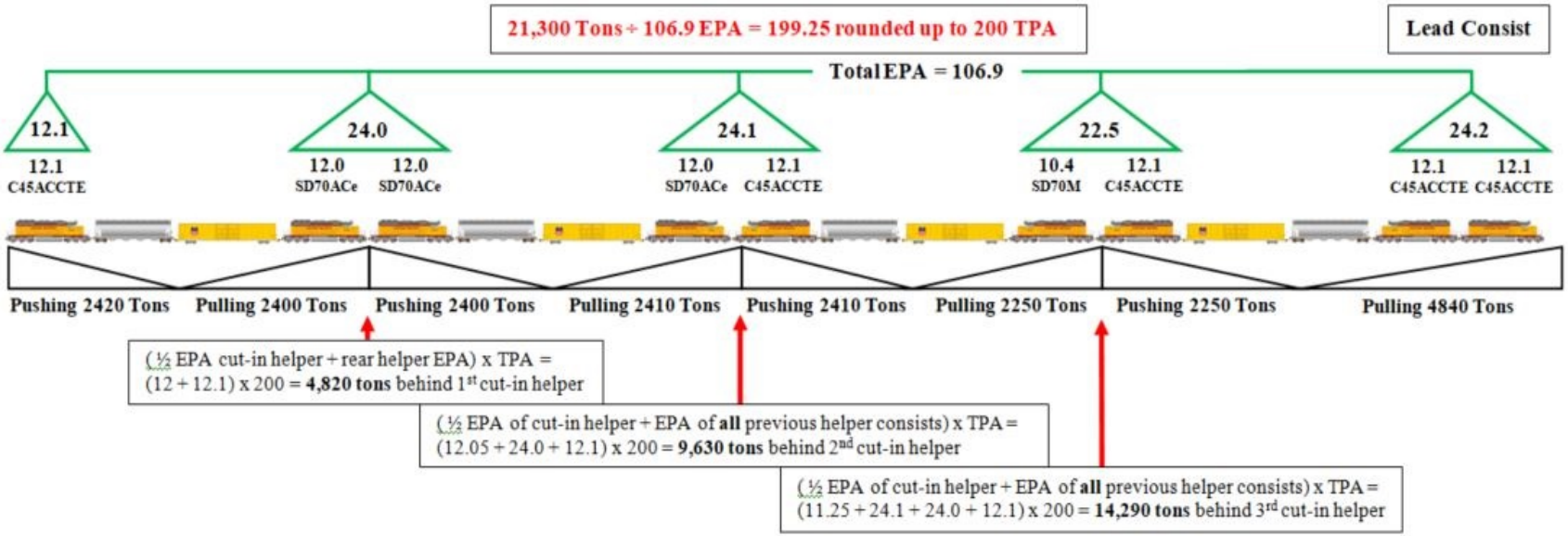
Exception: Trains with cut-in helper of 28 EPA or less may be located at other than the calculated position provided cut–in helper:

- Complies with coupler limits, restricted car and hazardous materials placement requirements.
- Is located within the tonnage it is calculated to handle.
  Using example above: ½ EPA cut-in helper x TPA =
  12 x 200 = **2400 tons** cut-in helper may be moved ahead / behind calculated position.

Example: **Item 5-C, Step 3-C: Two or more cut-in helpers - Without rear helper**



Example: **Item 5-C, Step 3-C: Two or more cut-in helpers - With rear helper**



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ITEM 6: Maximum Gross Weight Limitations

Item 6: Maximum Gross Weight Limitations

Maximum gross weight restrictions are shown in Timetable Item SI-12 for Subdivisions or SI-11 for Industrial Leads. They will indicate a maximum gross weight for a four-axle car with a coupled length of 53 feet 1 inch or longer and two letter restrictions (A through G and N through T).

Maximum gross weight for cars shorter than 53 feet 1 inch, articulated intermodal cars, six-axle cars, or eight-axle cars, can be obtained from the Car Weight Restriction Table by referencing the car length, axle count, and letter restriction.

The gross weight of a four-axle car may not exceed the most restrictive case of either:

- maximum gross weight based on journal size or other mechanical considerations, or
- maximum gross weight for subdivision (SI-12) or industrial lead (SI-11), or
- maximum gross weight for car length and letter restriction from the Car Weight Restriction Table.

  Examples:

  SI-12 for Subdivision XXX states '143 Tons, Restrictions C and R.'

  - For a four axle car 53'-1' long, the table indicates 158 Tons (row 11, column C). However, the car weight is restricted to 143 Tons by SI-12 maximum gross weight.
  - For a four axle car 41'-11' long, the table indicates 139 Tons (row 4, column C). The car weight is restricted to 139 Tons.
  - For an eight-axle car 74'-10' long, the table indicates 190 Tons (row 19, column R). The car weight is restricted to 190 Tons.

1. **Cars Exceeding Authorized Weights**
   Cars that do not meet the specified weight limits and cars having more than eight axles are not permitted without specific authority of the Clearance Team (800-544-0541) in the National Customer Service Center.
   Note: Any load in excess of timetable weight restrictions that has a Protection Notice (Track Bulletin) covering movement through the area may be moved as cleared by the notice. Train Management can determine if a Protection Notice has been issued.

2. **Six-Axle Locomotives**
   Do not operate six-axle locomotives on subdivisions or industrial leads where the maximum gross weight limitation is less than 120 Tons.

3. **Cranes and Pile Drivers**
   Do not operate relief outfit cranes, locomotive cranes, cranes, or pile drivers on subdivisions or industrial leads where the maximum gross weight limitation is less than 132 Tons.

4. **Multiplatform Cars**
   Multiplatform cars are identified on the TCS train consist as either 'articulated' or 'solid drawbar connected.' Weights and lengths are given for each individual platform.

   To determine maximum allowable gross weight

   - For a solid drawbar connected car, treat each platform as a separate car and refer to the SI-11 or SI-12 restriction and the Car Weight Restriction Table.
   - For an articulated car, refer to row 12 of the Car Weight Restriction Table. The maximum weight shown applies to the sum of the weights of any two adjacent platforms in the same car.

5. **Modifications**
   Changes to maximum gross weight restrictions in Timetable Items SI-11 and SI-12 must be submitted to the appropriate Rules Manager and approved by the Senior Manager Structures Design.

Car Weight Restriction Table

4-Axle and Intermodal Cars

Maximum Weight of Car (Tons) Based on Car Restrictions A-G.
Applicable to either single car or multiple car movements.
If weight in this table exceeds weight listed in Timetable SI-11 or SI-12, lesser weight in SI-11 or SI-12 controls.
Car lengths per UMLER reporting rules, with fractional inches rounded to the higher inch. For example, 48'-8½" => 48'-9".
NP denotes that the car may not be moved without specific authority of the Clearance Team.
*For articulated intermodal cars, weight shown is the sum of the weights of any two adjacent platforms in the same car.

				3.67 T/ft	3.41 T/ft	3.32 T/ft	3.13 T/ft	3.04 T/ft	2.97 T/ft	2.75 T/ft
Row	**No. Axles**	**Range of Car Lengths**		A	B	C	D	E	F	G
1	4	less than or equal to	34'-11"	NP	NP	NP	NP	NP	NP	NP
2	4	35'-0" to	38'-10"	129	119	116	109	106	104	96
3	4	38'-11" to	41'-10"	143	133	129	122	118	115	107
4	4	41'-11" to	43'-0"	154	143	139	131	128	124	115
5	4	43'-1" to	45'-8"	158	147	143	135	131	128	118
6	4	45'-9" to	46'-11"	158	156	152	143	139	136	126
7	4	47'-0" to	48'-8"	158	158	156	147	143	139	129
8	4	48'-9" to	50'-0"	158	158	158	152	148	145	134
9	4	50'-1" to	50'-11"	158	158	158	157	152	149	138
10	4	51'-0" to	53'-0"	158	158	158	158	155	151	140
11	4	53'-1" or	greater	158	158	158	158	158	158	146
12	Varies	Articulated Intermodal	158T or 143T Route	158*	158*	158*	158*	158*	158*	146*
			134T Route	134*	134*	134*	134*	134*	134*	124*

6-Axle and 8-Axle Cars

Maximum Weight of Car (Tons) Based on Car Restrictions N-T.
Applicable to either single car or multiple car movements.
Car lengths per UMLER reporting rules, with fractional inches rounded to the higher inch. For example, 61'-1½" => 61'-2".
NP denotes that the car may not be moved without specific authority of the Clearance Team.

Row	**No. Axles**	**Range of Car Lengths**		N	O	P	Q	R	S	T
13	6	less than or equal to	61'-1"	NP	NP	NP	NP	NP	NP	NP
16	6	61'-2" or	greater	188	188	180	171	171	160	NP
17	8	less than or equal to	64'-0"	NP	NP	NP	NP	NP	NP	NP
18	8	64'-1" to	73'-3"	209	200	186	190	180	178	NP
19	8	73'-4" to	84'-9"	222	212	193	201	190	189	NP
21	8	84'-10" or	greater	228	218	196	207	195	194	NP

Rule Updated Date

June 1, 2018

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ITEM 7: Employee Information

Item 7-A: Reference Documents

Employees must provide themselves with their own copy of the following and have them available for reference:

- This UPRR System Special Instructions document, which supersedes all previous System Special Instructions.
- Current applicable area timetable(s) for territories upon which operating.
  - Chicago Area Timetable #6, effective 0900C on 08/31/2020.
  - Council Bluffs Area Timetable #6, effective 0900C on 10/26/2021.
  - Dallas/Ft. Worth Area Timetable #6, effective 0900C on 06/29/2021.
  - Denver Area Timetable #6, effective 0900C on 08/17/2021.
  - Houston Area Timetable #8, effective 0900C on 08/27/2024.
  - Iowa Area Timetable #6, effective 0900C on 11/15/2022.
  - Kansas City Area Timetable #5, effective 0900C on 01/18/2022.
  - Livonia Area Timetable #3, effective 0900C on 12/17/2024.
  - Los Angeles Area Timetable #7, effective 0900C on 10/31/2023.
  - North Little Rock Area Timetable #7, effective 0900C on 06/15/2021.
  - North Platte Area Timetable #6, effective 0900C on 12/17/2024.
  - Portland Area Timetable #7, effective 0900C on 05/18/2020.
  - Roseville Area Timetable #8, effective 0900C on 05/10/2022.
  - Salina Area Timetable #7, effective 0900C on 06/07/2022.
  - Salt Lake City Area Timetable #6, effective 0900C on 05/18/2020.
  - San Antonio Area Timetable #7, effective 0900C on 07/25/2023.
  - St. Louis Area Timetable #6, effective 0900C on 03/30/2020.
  - Sunset Area Timetable #6, effective 0900C on 05/16/2023.
  - Twin Cities Area Timetable #6, effective 0900C on 12/19/2023.
- Subdivision general order for each subdivision operating on. There is one general order in effect for each subdivision.
- Current system general orders.

Note: There are 10 system general orders in effect at any given time that employees are required to have. System general orders are categorized as follows:

SSI 1 – 3 (1 Time Comparison; 2 Speed Restrictions and 3 Trains Handling Engineering Equipment)

SSI 4 - 5-C (4 Locomotive Information and 5 Car Placement and Train Make-up Restrictions)

SSI 6 - 9 (6 Maximum Gross Weight Limitations; 7 Employee Information; 8 Heavy and Mountain Grade Operations and 9 Use of Engine Horns)

SSI 10 - 10-B (10-A General Code of Operating Rules; and 10-B Electronic Conveyance (EC); Positive Train Control (PTC) Operations)

SSI 10-C - 10-D (10-C Air Brake & Train Handling Rules and 10-D Maintenance of Way Rules)

SSI 10-E - 10-G (10-E Safety Rules; 10-F Instructions for Inspecting, Welding and Grinding of Rail and Track Components and 10-G Chief Engineer Instruction Bulletins)

SSI 10-H - 10-M (10-H Hazardous Materials Instructions; 10-I Union Pacific Railroad Policies; 10-J Commuter Train Operations; 10-K Main Track Switches; 10-L Additional Equipment Securement Requirements; and 10-M Mechanical Department.)

SSI 11 - 17 (11 Moveable Point Frogs; 12 Track Breach Protection; 13 Train Defect Detectors; 14 Operating With Foreign Railroads; 15 Work Orders; 16 Tornado Watch and Warning Instructions and 17 Accessing General Orders and Bulletins Electronically)

SSI 18 – 22 (18 Distant Signals; 19 Block and Interlocking Signals; 20 Automatic Cab Signals; 21 Slide Warning Indicator and 22 Roadway Signs)

SSI 23 – 24 (23 Security Alert Instructions and 24 California Proposition 65 Warning)

- All rule books must contain the current rules and the latest revised chapters/pages in the proper page sequence. The required rule chapters for each employee work group are listed below. All employees must have a current copy of and comply with the rules corresponding to one of these work groups. If you have responsibilities that require rules in addition to those listed for your work group, contact your supervisor.

  Transportation (TE&Y)
  1-18, Glossary, Index; 30-39, Glossary; 70-83; Glossary, Index.

  Engineering and Communications
  1-9, 14 & 15, Glossary, Index; 40-57, Glossary, Index; 70-83; Glossary, Index; Electrical Safety Rules.

  Mechanical
  1-9, 14-18, Glossary, Index; 30-39, Glossary; 42; 70-83; Glossary, Index; Electrical Safety Rules.

  Clerical/General Office
  1-5, Glossary, Index; 70-83; Glossary, Index.

  Managers and Train Dispatchers
  All chapters.

  Current version:
  - Chapters 1 through 18, effective 04/01/20.
  - Chapters 20 through 27 effective 12/21/18.
  - Chapters 30 through 39, effective 07/11/23.
  - Chapters 40 through 57, effective 05/02/16.
  - Chapters 70 through 83, effective 05/10/2022.

- Instructions for Handling Hazardous Materials, Form 8620, effective November 19, 2024. Required for all employees examined on the General Code of Operating Rules. Conductors/Foremen who transport hazardous materials must also have a copy of the current Emergency Response Guidebook (ERG) (2024) readily accessible while on duty.
- Track Welding Rules and Procedures for Inspecting, Welding, and Grinding of Rail and Track Components, effective 05/02/2016 required for track supervisors, section foremen, and track welders, grinders, and slotters.
- Electrical Safety Rules, effective July 1, 2010,
  Required for Maintenance Operations, Engineering & Communications.
- Chief Engineer Instruction Bulletins effective 05/02/2016 required for all examined Engineering Department employees and Transportation Department managers.
- UPRR photo identification card (National Badge) must be in each employee's possession. Each National Badge expires after 6 years. If your National Badge is expired, contact your manager to get a new photo taken as soon as possible. The National Badge must be kept current whether the employee has a certification or not. A National Badge will not be required to be in their possession if the employee has a photo on their FRA certificate.
- A valid "FRA Certificate" card, if applicable, regardless of the type of service the employee is called to perform, must be in the employee's possession while on duty. Each FRA Certificate must have your photo on it to be valid. If you are issued an FRA certificate with no photo, contact your manager to get a new photo taken as soon as possible. Within 10 days after taking photo notify EC&L at 544-CERT. Restrictions listed on certificate must be complied with as required. Certified employees who wear contact lenses must have a pair of corrective glasses available while on duty.
- A valid TWIC card is required for all employees who are assigned to work in port locations and must be in the employee's possession while on duty. A new or renewed TWIC card will be valid for 5 years. Union Pacific will reimburse the actual expense of the TWIC card when it is required to perform duties. To be reimbursed, employees must submit the request as a non service timeslip claiming class of time "9X-TWIC reimbursement" and fax the receipt to (402) 271-5427 or 8-271-5427. Once the new TWIC card is received, employees must notify their manager of the new expiration date.

Electronic Versions

Access and use of approved electronic media must be restricted in accordance with Rule 2.21 Electronic Devices.

Employees may utilize electronic media (Laptop, Tablet, Smartphone, etc.) to access the approved electronic versions from the UP Website or ERT Mobile App in lieu of printed copies. Follow these instructions to download rules or documents specified in SSI Item 7-A from the employee website:

1. On the **Departments** dropdown, select **Operating**.
2. In the **Resources** section, **Union Pacific Rules**.

Employees must be able to access the electronic versions in a timely manner. This does not relieve employees from having the most current required revisions. Electronic versions must be capable of displaying information as intended, and Timetables and Form 8620 must be displayed in color.

When using electronic devices, the UPRR General Code of Operating Rules version applies only when operating on UPRR trackage. UPRR crews operating on foreign lines must use the BASIC General Code of Operating Rules.

Rule Updated Date

December 16, 2024

General Order

Effective Date: December 16, 2024

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Item 7-B: Qualifications of Certified Employees

A. Train Service Engineers (TSE)

Qualification is determined by a Designated Supervisor of Locomotive Engineers (DSLE) before the TSE is allowed to operate without direct on-board supervision. Depending on individual case-by-case circumstances, a DSLE can provide notice of qualification after a ride, face-to-face discussion, telephone conversation, or electronic notification with the TSE. However, if the TSE disagrees with the decision that he or she is qualified, a DSLE must ride with the TSE before qualification. The ride must be of sufficient duration over the most demanding portion of the territory to ensure proficiency.

1. **Initial Familiarization**
   Prior to being qualified on a main track territory upon which the employee has never operated in the capacity of a TSE, he or she must make a minimum of one round trip over the entire territory for familiarization. Any additional trips for qualification will be determined by the DSLE responsible for that location and will be based on the number of trips necessary to qualify the typical TSE. Prior experience will be taken into account in determining the number of required trips. TSEs who have not completed initial familiarization on the territories listed below are prohibited from operating a train on the territory unless accompanied by a DSLE or a qualified TSE familiar with the territory until completing the minimum round trips listed.

2. **Maintaining Train Service Engineer Proficiency**
   A TSE who has not worked any road trips in the past 12 months on territories in which the TSE was previously qualified must notify his/her manager.
   When called to work a road trip for skills proficiency, a DSLE or a qualified TSE familiar with the territory will accompany the TSE a minimum of (1) trip. To the extent practicable, the DSLE will conduct an annual monitored ride during the trip pursuant to the FRA TSE certification requirements for TSEs who do not normally work road trips.

3. **Route Familiarization**
   Route familiarization is required to perform service as a certified TSE without the assistance of a pilot.

   TSEs are responsible for maintaining territory familiarization on the routes in their respective seniority districts.

   Exception: Route familiarization as outlined above on the heavy and/or mountain grades of subdivisions listed in the following table, in any capacity, is required every 5 months.

   In addition to the twelve month requirements, TSEs subject to call on the following territories who have not worked both directions in the past five months must notify their manager. When notified, the manager will discuss the familiarization requirements to determine if familiarization trips are needed. A TSE who has not worked both directions during the

preceding six months must notify CMS and their manager of this fact. Unless otherwise instructed by the DSLE assigned to the territory in question, the TSE is prohibited from operating a train on the territory unless accompanied by a DSLE or a qualified TSE familiar with the territory for a minimum of (1), one-way re-familiarization trip.

Subdivision	Minimum Initial Familiarization Round Trips	Between	Subdivision	Minimum Initial Familiarization Round Trips	Between
Los Angeles (BNSF Cajon)	6/MT 1 or 2 6/MT 3	Yermo and West Riverside	Craig	6	Phippsburg and Craig
Cima	6	Cima and Kelso	Montana	6	Monida and Waco, Apex and Silver Bow
Caliente	6	Crestline and Las Vegas	Greeley	3	Lasalle and Cheyenne
Huntington	8	LaGrande and Huntington	Green River	6	Grand Junction and Helper
LaGrande	8	LaGrande and Hinkle	Provo	6	Helper and Salt Lake
Canyon	4	Portola and Oroville	Evanston	6	Wahsatch and Echo
Brooklyn	4	Eugene and Oakridge	Laramie	6	Sherman and Cheyenne
Valley	4	Dunsmuir and Redding	Colorado Springs	4	Denver and Colorado Springs
Cascade	8	Oakridge and Klamath Falls	Mojave	10	Bakersfield and West Colton
Black Butte	8	Klamath Falls and Dunsmuir	Yuma	10	West Colton and Indio
Roseville	6	Roseville and Sparks	SCRRA	5	Palmdale and Burbank Jct.
Moffat Tunnel	6	Denver and Tabernash Bond and Crater	Coast	6	San Luis Obispo and Santa Margarita

4 Trains Service Engineers (TSE) and Locomotive Servicing Engineers (LSE) cut back or recalled to positions:

a. Many promoted engineers retain seniority rights as brakemen and/or conductors. Due to changes in work force requirements, some of these TSEs and LSEs may be cut back to brakeman or conductor assignments. When this occurs, these individuals may be permitted to operate the locomotive if:

- Such activity does not interfere with their assigned duties.
- They have the consent of the working TSE or LSE of the crew.

Locations are not limited to territories where the employee was previously qualified. Only a TSE or LSE holding a valid Form 20106, Union Pacific Railroad FRA Certificate, is allowed to operate a locomotive. Seniority restrictions placed on an employee while a TSE or LSE remain in effect. A disqualified TSE or LSE must not operate a locomotive.

b. Cut back TSEs who have not worked as a TSE within the past 6 months must notify a DSLE and CMS of this fact. The DSLE can require the employee to make trips over a subdivision to maintain proficiency as an engineer.

c. During the first 12 months following completion of the TSE training program, an employee who has not worked any road trips as a TSE in the past 30 days, if called to work as a road TSE, must not accept the call unless so instructed by the DSLE. The DSLE will also determine if any additional familiarization trips or training may be needed following any period in cut back or furloughed status within that 12 month period.

B. Remote Control Operators (RCO) & Locomotive Servicing Engineers

1. **Qualification**
   Qualification is determined by a Designated Supervisor of Remote Control Operations (DSRCO) or DSLE before the RCO /LSE is allowed to operate without direct supervision. Depending on individual case-by-case circumstances, a DSRCO /DSLE may provide notice of qualification after a ride, face-to-face discussion, telephone conversation, or electronic notification with the RCO/LSE. However, if the RCO/LSE disagrees with the decision that he or she is qualified, a DSRCO must ride with the RCO before qualification.

2. **RCO position not worked in the previous 6 month**
   A Remote Control Operator who has not worked as a RCO in the previous 6 months must notify a service unit manager:

   - Before being placed on a board that requires the employee to work a RCO position.
   - If called to work a RCO position.

   Employees must also inform the manager if their skill as an RCO has not been evaluated in the past 12 months.

3. Remote Control Operators on selected jobs

The service unit will list jobs that require additional training and familiarization in Service Unit Superintendent Bulletins. Additional air brake and train/track dynamics training may be required for these jobs. The RCO is responsible for notifying a manager before placing themself on a position or when forced to an RCO assignment. The lead DSRCO will determine what, if any, training and familiarization is required. Remote control operators must not exceed the limits of their qualification and must inform the manager of limits, if requested to exceed qualification.

C. Conductors

1. **Initial Certification**
   Train service employees hired after December 1, 2012, must pass all proficiency, knowledge, and territory familiarization training and testing required by law and the Company's Conductor Certification Program to work as a certified, fully qualified conductor.

2. **Territory Familiarization on Main Track**
   Conductors are responsible for maintaining territory familiarization on the routes in their respective seniority districts.

   Each person who is called to perform service as a certified conductor must meet the territory familiarization requirements on the pertinent segment(s) of main track where they work. Route familiarization is maintained by observing the route when performing service in any capacity (engineer or trainman). Training trip(s) may be required if territory familiarization has expired and can include the use of technology and/or job aids. Employees must pass a territorial examination covering the operating conditions of main track territory where they have never operated, and for territory not traversed for a period of twenty-four (24) months or longer prior to working over that territory. Conductors must notify CMS and a service unit manager if they do not meet these territorial familiarization requirements prior to protecting service.

   Exception: A pilot is not required if a conductor is working on a section of track with an average grade of less than 1% over 3 continuous miles, and any one of the following applies:

   - The maximum distance the locomotive or train will be operated does not exceed one mile.
   - The maximum authorized speed for any operation on the track does not exceed 20 miles per hour.
   - Operations are conducted under operating rules that require every locomotive or train to proceed at a speed that permits stopping within one-half the range of vision of the locomotive engineer.

   3 Territory familiarization on other than main track
   .

   If a conductor has never worked on a segment of track or has not been over that track for a period of twenty-four (24) months or longer, the conductor will be:

   - Accompanied by a qualified employee who meets the territorial requirements where practicable.
   - Provided an appropriate job aid or
   - Receive a detailed job briefing from an employee familiar with the territory.

D. Recertification (All Classes of Services)

Employees requiring recertification packets are to print the necessary forms from the Certification area of the TE&Y portal. Instructions on printing the documents for TE&Y employees are issued in the service unit superintendent's bulletin.

150 days prior to the certification expiration date, an item will be available on the "Certification" link of the TE&Y portal allowing the packet to be printed using a local printer. The packet will only be available for employees who are certified and must complete required documents for recertification. Employees are required to follow the instructions contained in the packet and complete all required forms as well as follow the instructions for obtaining hearing and/or vision exams. Employees must confirm with the clinic that their hearing and vision results meet minimum requirements. If exam results indicate hearing and/or vision do not meet FRA minimum standards, employees may not report to work until medically cleared by UPRR Health and Medical Services. Working regulated service after receiving notification of hearing and/or vision

not meeting minimum requirements could result in discipline, up to and including termination. Contact Health and Medical Services at 402-544-7011 with questions. All required items must be completed promptly, but not less than 60 days in advance of the certificate expiration date. All certified (licensed) employees must be re-certified (licensed) every three years. FRA Certificates will expire on the employee's birthday, every third year, after initial certification. If the re-certification information is not available on the TE&Y portal, contact the licensing group at 402-544-2378.

Note: If you are unable to print the necessary forms, please consult your immediate supervisor for assistance. A separate UP photo ID will not be required if the employee has a photo on their FRA certificate.

All certified employees must maintain a valid, unexpired certificate. Failure to do so may result in an interruption in service. It is the individual employee's responsibility to ensure that their certification does not expire.

It is the individual employee's responsibility to ensure availability to perform service by maintaining valid certification(s). Employees must carry an unexpired FRA Certificate for freight and/or passenger service while on duty.

Employees who are certified for multiple TE&Y classes of service will be issued one certificate listing each class of service the employee is qualified to perform. In order to maintain multiple classes of service, employees will be required to satisfy all proficiency testing and regulatory recertification requirements on a periodic basis (i.e., hearing, vision, motor vehicle, certification ride, etc.). Multiple certificates will all have the same expiration date.

Recertification is required within three years of the expiration date listed on the employee's FRA Certificate. Employees will have access to recertification instructions via the certification link in TE&Y portal 150 days prior to the expiration date on his /her license. If the re-certification item is not available on the TE&Y portal, contact the licensing group at 402-544-2378. **All requirements must be completed promptly, but no less than 60 days prior to the expiration of the certification.**

E. Familiarization and Pilot Authorization

All certified TE&Y employees who bid, place, or are forced to a new assignment must contact a manager to arrange for completion of any necessary company or regulatory familiarization requirements prior to working the new assignment if :

1. They have never worked the territory
   or
2. Their territory familiarization or territory exam for that assignment has expired.

The TE&Y employee must contact a service unit manager to authorize the use of a qualified pilot in advance of call or reporting for the assignment. Failure to comply with these instructions may subject the employee to discipline.

Rule Updated Date

November 19, 2024

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ITEM 8: Heavy and Mountain Grade Operations

Item 8: Heavy and Mountain Grade Operations

1. Cresting Grade Requirements

Cresting the Summit "CG"

When freight trains (leading locomotive) and light locomotive consists crest the summit of grades listed below as "CG", speed must be at least 5 MPH below:

- The maximum authorized freight speed listed in descending grade speed table found in the timetable subdivision special instructions.
  or
- Permanent track speed when subdivision special instructions do not contain a descending grade speed table.

2. Descending Grade Requirements

When operating freight trains or light locomotive consists on descending grades between locations listed below as 1% or 2%, if train speed reaches 5 MPH above maximum authorized speed:

- Stop movement immediately, using an emergency brake application.
- When operating light locomotives consists, actuate and fully apply independent brake.
- After stopping, immediately apply hand brakes as required to prevent movement.
- Do not move the train until authorized by a Designated Supervisor of Locomotive Engineers.

Refer to Rule 34.2.10 Emergency Brake Applications.

3. Penalty and Emergency Brake Application Requirements

When stopped by a penalty or emergency brake application initiated from any source while operating on grades listed below as 1% or 2%, immediately notify the train dispatcher and secure train using Secondary Securement Procedure contained in Rule 32.1.1.

Applying power to hold a train stationary while recharging is PROHIBITED unless authorized by OPCC.*

***Note:** If emergency application was initiated due to speed approaching or reaching 5 MPH above maximum authorized speed, applying power to hold a train stationary while recharging is PROHIBITED and train must be secured with handbrakes.

Before releasing automatic brake to recharge train, engineer must contact local Designated Supervisor of Locomotive Engineers (DSLE) or OPCC and conduct a Job Briefing regarding:

- Source of brake application (penalty, undesired or crew-initiated emergency).
- Grade of track (ascending/descending/straddling the summit of the grade).
- Train separation(s) if applicable.
- Number of handbrakes required as contained in securement chart (Rule 32.1.1), based on train tonnage or tonnage of each section of train if train separation occurred.
- When authorized by OPCC to apply power while recharging, number of handbrakes required (per Rule 34.3.2) to hold train or portion of train stationary.

4. Two-Way EOT Requirements

The following restrictions are applicable to those grades listed below:

1% (Heavy Grade) Trains departing from a designated crew change location for that train, if entering territory listed in the following table, must be equipped with an operable 2-way end-of-train telemetry device (rear-end unit and head-end unit) or equivalent device. The following trains do not require a 2-way EOT or equivalent device to operate on these grades:

- Passenger trains.
- Local trains not exceeding 4000 trailing tons, operating within a single designated crew district, and not operating over a section of track indicated as 2%.
- Work trains not exceeding 4000 trailing tons and not operating over a section of track indicated as 2%.

2% (Mountain Grade) Trains operating on the following grades listed in the following table must be equipped with an operable 2-way end-of-train telemetry device (rear-end unit and head-end unit) or equivalent device. Passenger trains do not require a 2-way EOT or equivalent device.

Note: Refer to rule 32.9.1 Emergency Application Capability from Rear of Train for additional information regarding requirements and rule 32.9.6 Loss of Emergency Application Capability from Rear of Train for enroute failures.

Subdivision/Industrial Lead	Location (Applies for movements in both directions between/at the points unless specified otherwise.)	Applicability Code
Altoona	St. Paul and Hammond	1%
Bend	BNSF MP 102.5	CG
Bingham Ind. Lead	Leadmine and Welby	CG
Black Butte	Azalea, MP 331.5, Southward	CG
	Grass Lake, MP 367.7, Southward	CG
	Azalea and Dunsmuir	2%
	Klamath Falls and Azalea	1%
Caliente	Crestline and Las Vegas	1%
Canyon	Portola and Oroville	1%
Carrizozo	Vaughn and Alamagordo	1%
Cascade	Cascade Summit, MP 537.5, Northward	CG
	Cascade Summit to Oakridge	1%

Cedar City	Cedar City , Eastward	CG
Chevron Industrial Lead	MP 8.00 and Chevron	1%
Cima	Cima, MP 253.8, Westward	CG
	Cima and Kelso	2%
	Las Vegas and Arden	1%
Clifton	Clifton and Guthrie	2%
Coast	Cuesta, MP 235.7, Northward	CG
	MP 236.6, Southward	CG
	San Luis Obispo and Santa Margarita	2%
	San Luis Obispo and King City	1%
Colorado Springs	Palmer Lake, MP 50.0, Southward	CG
	Sedalia and Colorado Springs	1%
Cumberland Ind. Lead	MP 9.4 Northward	CG
De Soto	Piedmont and De Soto	1%
Dry Valley	MP 25.0 Southward	CG
Elkol Industrial Lead	MP 2.4 Northward	CG
Evanston	Wahsatch, MP 928.0, Westward, MT 1	CG
	Wahsatch and Ogden	1%
Falls City	Atchison and Nebraska City	1%
Glenwood Springs	Bond and Grand Jct.	1%
Gila	Estrella and Bosque	1%
Greeley	Cheyenne and Greeley	1%
Green River	Grand Jct. and Helper	1%
Huntington	Encina, MP 352.0, Both directions	CG
	Telocaset, MP 312.5, Westward	CG
	Pleasant Valley and Pritchard Creek	2%
	Pleasant Valley and Durkee	1%
La Grande	Kamela, MP 271.3, Both directions	CG
	Kamela and Hilgard	2%
	Kamela and Huron	2%
	Minthorn and Hilgard	1%
Lakeside	MP 645.40, Eastward	CG
	MP 616.3, Westward	CG
	Lucian and Wells	1%
Laramie	MP 536.2, Eastward, MT 1 & 2	CG

	MT B547.3, Westward, MT 3	CG
	Sherman and Wycon	1%
	Hermosa and Red Buttes	1%
Limon	Sharon Springs and Mesa	1%
Livonia	W. Bridge JCT and E. Bridge Jct.	1%
Lone Pine	Cantil and Searles	1%
Lordsburg	PFE Yard and Lordsburg	1%
Los Angeles (BNSF Cajon)	Silverwood, BNSF MP 56.6, Westward	CG
	Summit and San Bernadino	2%
	West Riverside Jct. and Barstow	1%
Lufkin	Appleby and Tenaha	1%
Modoc	Ambrose MP 484.6 and Canby MP 478.0	CG
	Ambrose and Canby	2%
Moffat Tunnel	MP 50.1, Eastward	CG
	MP 57.0, Westward	CG
	MP 138.5, Eastward	CG
	MP 154.0, Westward	CG
	East Portal and Rocky	2%
	Winter Park and Fraiser	2%
	Crater and Bond	2%
	Denver and Bond	1%
Mojave	MP 359.5, Northward	CG
	Cameron, MP 371.5, Southward	CG
	Hiland, MP 463.8, Southward	CG
	Through Silverwood connector track Southward, MP 464.7	CG
	Hiland and Slover	2%
	Tehachapi and Ilmon	2%
	Cable Xover and Mojave	2%
	Slover and Bakersfield	1%
Montana	Monida MP 264.0	CG
	Apex MP 340.25	CG
	Humphrey and Dubois	2%
	Apex and Navy	2%
	Feeley and Silver Bow	2%

	Idaho Falls and Silver Bow	1%
Nampa	Ticeska, MP 358.0, Westward	CG
	Reverse, MP 391.5, Eastward	CG
	Mt. Home and Bliss	1%
Oak Creek Industrial Lead		2%
Oakland	Tracy and Altamont	1%
Peoria	Pottstown and Pioneer	1%
Pocatello	At Kemmerer	1%
Powder River	S. Morrill and E. Caballo Jct.	1%
Provo	MP 638.2, Eastward	CG
	MP 651.8, Westward	CG
	MP 673.3, Westward	CG
	Kyune and Helper	2%
	Summit and Castilla	2%
	Helper and Springville	1%
Roseville	MP 136.4, Westward, MT 1	CG
	MP 137.0, Westward, MT 2	CG
	MP 191.0, Westward, MT 1 & 2	CG
	MP 192.0, Eastward	CG
	Norden and Loomis MP 114.0	2%
	Norden and Truckee	2%
	Sparks and Roseville	1%
Sanderson	Maxon and Altuda	1%
SCRRA Trackage	Vincent MP 61.8	CG
	Vincent and Palmdale	2%
	Vincent and Paris	2%
	Burbank Jct. and Palmdale	1%
Sedalia	Dow and Smithton	1%
	Rock Creek Jct. and Pleasant Hill	1%
Shafter	Wendover and Wells	1%
Sharon Springs	Brookville and Sharon Springs	1%
Spokane	Shiloh and Eastport	1%
Stauffer Industrial Lead	Stauffer and Big Island	1%
Sunnyside Industrial Lead	Sunnyside and Banning	2%
Tennessee Pass	MP 281.8, Westward	CG

	MP 290.3, Westward	CG
	Tennessee Pass and Minturn	2%
Toyah	Sweetwater and Sierra Blanca	1%
Valentine	Alpine and Marfa	1%
	Sierra Blanca and McNary	1%
Valley	Dunsmuir and Redding	1%
Wallace Industrial Lead	Spokane and Plummer	1%
Yoder	Yoder and Egbert	1%
Yuma	Beaumont, MP 561.4, Westward	CG
	MP 566.2, Eastward	CG
	Beaumont and Garnet	2%
	Beaumont and MP 545.1	1%

Rule Updated Date

November 19, 2024

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ITEM 9: Use of Engine Horns

Item 9: Use of Engine Horns - Quiet Zone

Quiet Zone

Quiet zones are designated in the timetable. Do not sound the horn for grade crossings within limits or at locations designated on the subdivision page.

Sounded Horn

Horn may be sounded to provide a warning to animals, vehicle operators, pedestrians, trespassers or crews on other trains in an emergency situation when engineer believes such action is appropriate in order to prevent injury, death, or property damage.

Horn must be sounded when:

- Employees are working on or near the track.
- Meeting or passing the head end or rear end of a train in the vicinity of a grade crossing.
- Notified that automatic warning devices are malfunctioning or disabled or crossings require additional precautions. Sound whistle signal 5.8.2(7) regardless of any prohibition.

Rule Updated Date

May 2, 2016

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ITEM 10: Rule Supplements & Amendments

Item 10: Rule Supplements & Amendments

Critical Rules for Operating and Supply Departments

Critical Rules - Transportation	
Rule Number	**Rule Description**
6.5	Shoving Movements
6.5.1	Remote Control Movements
8.2	Position of Switches
8.20	Derail Location and Position
32.1.1/32.1.4/ 32.2.1	Securing Cars, Engines, Trains, etc. (Failure to properly apply hand brakes or air brakes)
81.2.2	Sufficient Distance
81.5.4	Establishing Protection Before Crossing Through or Fouling Equipment
81.7	Riding Equipment (Parts B, C, D, E, F, and G)
81.8.1	Avoiding Fouling Hazards
81.13.1	Working Between Equipment

Critical Rules - Engineering

Rule Number	Rule Description
42.2.2	Other Speed Requirements
42.6	Grade Crossings
45.1	Handling Material with Equipment
135.3.2	Lockout/Tagout Procedures (Part D)
135.4	Maintenance or Repair of Running Equipment
136.7.3	Working Around Roadway Maintenance Machines (RMM)

Critical Rules - Mechanical	
Rule Number	**Rule Description**
5.13	Blue Signal Protection of Workmen (Failure to apply Blue Signal Protection in Yards and Sidings)
70.9	Removing EOCC / COCC
76.3.15	Securing Jacked Equipment (Failure to apply secondary supports)
78.2	Lockout/Tagout (Failure to tagout source or neutralize stored energy)
80.14	Fall Protection (Working without/removing fall protection where required)
81.4.1	Standing Equipment (Part B)
81.8.3	Impaired Clearances (Part A)
81.19	Air Brake Rigging

Critical Rules - Critical Rules for Premium Ops/Supply/Information Technologies	
Rule Number	**Rule Description**
1.13	Reporting and Complying with Instructions
74.3	Cell Phone/Electronic Device
74.5	Seat Belts
	Violations that result in property damage meeting or exceeding the FRA reportable monetary threshold.

Critical Rules - Premium Operations	
Rule Number	**Rule Description**
5.13	Blue Signal Protection
7.6/32.1.1/32.1.2/32.1.3/32.1.4/32.2.1	Securing Cars, Engines, Trains, etc.
74.12	Off Road and Yard Vehicles
81.23	Lockout Protection Required
83.1.6	Adjustment of Container on Chassis
83.1.9	Intermodal Equipment Maintenance Repair Lockout / Tagout Procedures
83.2.1	Speed Limits on Ramp
83.2.2	Observing Stop Signs / Stop Lines
83.3.2	Overhead Lifting
83.3.4	Staying Clear of a Suspended Load
83.3.5	Getting On and Off Intermodal Cars

83.3.8	Crossing Platforms
83.4.2	King Pin (Inspect to ensure locked)
83.4.3	Loading Container on Flat Car - COFC
83.4.5	Hitches
83.5.4	Securing Containers
83.7	Electronic Devices

Critical Rules - Supply	
Rule Number	**Rule Description**
70.6	Lifting and Moving Material
74.2	Driver Requirements
74.2.1	Qualified Drivers
75.3	Loading and Unloading Tractor Trailers
75.7	Forklifts

Critical Rules - Information Technologies	
Rule Number	**Rule Description**
74.2.1	Qualified Drivers
78.2	Lockout/Tagout Procedures
78.8	Operating Booms Near Power Lines
80.14	Using Fall Protection
136.3	Job Briefing
136.3.1	Job Briefing for Roadway Work Groups
136.4	On Track Safety Procedures
136.4.1	Exclusive Track Occupancy
136.4.2	Inaccessible Track
136.4.3	Individual Train Detection
136.4.4	Train Approach Warning
136.4.6	Flag Protection
136.4.7	Train Coordination
136.4.8	Automatic or Symbol (Z) Manual Interlockings
136.4.9	Train Approach Warning System (TAWS)
136.7.3	Work Zone Around Machines
136.7.4	Safe Working Distance Between Machines
136.7.5	Safe Traveling Distance
136.7.6	Tying Up Machines
138.3.2	Critical Lift

Rule Updated Date

September 3, 2024

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Item 10-A: General Code of Operating Rules, Chapters 1 to 19

1.2.5 - Reporting
Change rule to read:
All cases of personal injury, while on duty or on company property, must be accurately, timely, and immediately reported to the proper manager. For injuries that result in medical evaluation and/or treatment from an outside provider, the injured employee must complete Form 52032 (Rev. 07/19).

A personal injury that occurs while off duty that will in any way affect employee performance of duties must be reported to the proper manager as soon as possible. The injured employee must complete Form 52032 (Rev. 07/19) before returning to service.

All cases of occupational illnesses must be immediately reported to the proper manager and Form 52032 (Rev. 07/19) must be completed by the employee.

Because railroads are required by Federal Regulations to report injuries and occupational illnesses that meet certain medical treatment criteria, when medical treatment is received from an outside provider, employees must report to the proper manager medical treatment they receive that is directly related to their injury or illness, including follow-up visits. Below are some examples of the types of medical treatments and instructions employees must report to the proper manager, if provided, in relation to an injury or occupational illness:

- Medical treatment provided or recommended
- Physical therapy or chiropractic treatments
- Prescriptions and other medications issued or recommended, including dosages
- Lost work day instructions
- Work restriction instructions

Application:
Reporting: 'Proper manager' is defined as the employee's assigned manager, or any on duty manager for work group. While employees are encouraged to immediately seek first aid or medical treatment when needed, consulting with, or being seen by an Occupational Health Nurse (OHN) does not relieve the employee of reporting requirements. Form 52032 (Rev. 07/19) must be filled out by the employee in the presence of a Union Pacific Manager.
**Outdated revisions of Form 52032 will not be accepted, in order to provide Safety Reporting Compliance with all necessary information to meet regulatory requirements.
1.3.1 Rules, Regulations and Instructions
Change part:
Rules Regulations and Instructions
To read:
Employees must be familiar with and obey all rules, regulations, and instructions and must complete required courses. Employees must pass examinations to check their knowledge of the rules, regulations and instructions as required.

Change part:

Issued, Canceled, or Modified
To read:
Rules may be issued, canceled, or modified by track bulletin, general order or special instructions. When there is a conflict, subdivision special instructions take precedence over system special instructions.

Rule : 1.3.2 General Orders
Add a sentence to last paragraph:

Employees must each have a current copy of system general orders and subdivision general orders they can refer to while on duty.

1.3.3: Superintendent Bulletins, Instructions, and Notices
Change title and rule to read :
1.3.3: Superintendent Bulletins, Instructions, and Notices
Superintendent bulletins, instructions, notices, and other information are issued and canceled by the designated manager. Before beginning each day's work or trip, crew members and any others whose duties require, must review those that apply to the territory they will work on.

1.5 - Drugs and Alcohol

Add as last paragraph:
Refusals to provide a test sample or interference or delay in the testing process are also treated as prohibited conduct. This also includes leaving the scene of an accident, tampering or substituting a sample.
Application:
Also refer to the UPRR Drug and Alcohol Policy which governs all employees. Access the policy by using the link:

http://home.www.uprr.com/emp/operating/op_prac/dap/index.shtml

Rule : 1.6.1 Motor Vehicle Driving Records
Change Rule To Read :
A certified conductor, engineer, employee seeking initial certification or employees qualified to drive commercial motor vehicles must report any arrest, citation or conviction to an employee assistance representative at (800)779-1212, within 48 hours for:

- Operating a motor vehicle while under the influence of or impaired by alcohol or a controlled substance.
- Refusal to undergo such testing when a law enforcement official seeks to find out whether a person is operating under the influence of alcohol or a controlled substance.

State-sponsored diversion programs, guilty pleas, and completed state actions to cancel, revoke, suspend, or deny a driver's license are considered convictions as applied to this rule.

Rule : 1.6.3 Notification of Deteriorating Vision or Hearing
Add note to read:

Note: A certified conductor, engineer or employee seeking initial certification who has knowledge that a restriction listed on their FRA Certificate has been corrected or improved to meet the minimum acceptable requirement as outlined in federal regulations must report that fact immediately to the proper authority or the medical department (402-544-5234).

1.10 - Games, Reading, or other Media
Change rule to read:

Employees on duty must not:

- Play games.
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices).
  or
- Read magazines, newspapers, or other literature not related to their duties when:
  - It would delay or interfere with required duties.
  - Performing safety related activities.
  - A member of a train crew is performing safety related activities.
    or
  - Any other authorized individual is assisting in preparation of the train, engine or on-track equipment for movement.

All literature and electronic devices not related to assigned duties must be properly stowed when required.

1.11.1 - Napping
Change rule to read:
TE&Y and Engineering employees, except those working in passenger or commuter service are permitted to nap while on duty when it does not cause a delay to the operations or interfere with the performance of safety-related duties, the safety of the employee , coworkers , or the public under the following conditions:

- The employee has reported on duty and completed all necessary preparations for duty including a job briefing. These duties include reviewing all general orders, track warrants, track bulletins, and all other paperwork.
- The employee responsible for notifying a napping employee work is ready to proceed should allow at least 15 minutes for the napping employee to recover from grogginess which may occur after awaking. Another job briefing must not occur during the 15 minute recovery period, but must take place prior to proceeding with work to ensure all employees are prepared to perform service after the operational delay has concluded.
- The napping employee is relieved of all duties during the napping period. Employees being transported to or from their job duties may nap when no safety sensitive duties are being performed by another employee.

Transportation Employee Requirements:

- When napping in a designated napping facility, one member of the assigned crew or work team must remain awake at all times to perform any work related duties including ensuring that all employees are ready to commence work promptly after the delay has ended. If the entire crew requests time to nap, the supervisor on duty may grant the request if doing so does not jeopardize the safety of the employees, the public, or train operations and will be responsible for ensuring the crew is ready to commence work promptly after the delay has ended.

- A job briefing must be conducted to review the conditions of the napping period and to reach agreement as to who will nap and who must remain awake. The employee's supervisor or co-worker has the right and responsibility to refuse to allow another employee to take a nap if doing so could jeopardize safety or cause undue delay to operations.
- Before napping is allowed **on a locomotive**:

  1. The employee in charge of the locomotive controls must:

     - Make at least a 10 pound brake pipe reduction.
     - Place generator field switch in the "OFF" position.
     - Center and remove the reverser, if removable.

  2. The employee who is to remain awake must remain on the locomotive while others on the locomotive are napping, except when inspecting passing trains.

Engineering Employee Requirements:

- Employee must request a nap from their immediate supervisor and identify the location where the nap is to take place. The supervisor may grant the request if doing so does not jeopardize the safety of employees, the public or train operations. In no case may the employee nap foul of any track or in an area where equipment is operating.
- Before napping is allowed **on maintenance of way equipment:** The operator of the equipment must ensure the equipment is properly tied down, secured against movement and adequately ventilated.
- When on a road in a company vehicle, at least one employee in addition to the employee driving the vehicle must stay awake to help the driver identify potential hazards ahead.

Rule : 1.12 Weapons
Application:

Also refer to UPRR Policy to Address Violence & Abusive Behavior in the Work Place. Access the policy by using the link: http://home.www.uprr.com/emp/ec/policy/violence.shtml

1.17: Hours of Service Law

Change first paragraph to read:
Employees must be familiar and comply with the requirements of the federal hours of service law, including accurate reporting. Employees are expected to use off-duty time so they are prepared for work.
1.22 - Unauthorized Persons
Change Title and Rule To Read :
1.22: Unauthorized Persons

Unauthorized persons or trespassers on company property must be told to leave the premises, unless confronting the person(s) would be unsafe.

If the person(s) refuse to leave, or if confronting the person(s) would be unsafe, request immediate assistance from Railroad Police (RMCC) or local law enforcement authorities.

Promptly notify the train dispatcher or supervisor when unauthorized persons or emergency responders are observed on, under

or between railroad equipment.

When made aware of emergency responders on, under or between railroad equipment, train dispatcher or supervisor must arrange for a qualified employee to inspect all affected equipment to verify proper securement as soon as practical.

When possible, Railroad Police must be advised of all unauthorized persons or trespassers on company property.

1.23.1 - Locomotive-Mounted Safety Devices
Add new Rule:
A. Tampering with or Disabling

Employees are prohibited from:

- Tampering with or disabling any locomotive mounted safety device.
- Operating or failing to take appropriate action to prevent a train from being operated when the controlling locomotive of that train is equipped with a disabled safety device, except as provided in part C of this rule.

Safety devices include crew alertness devices, automatic cab signal devices, automatic train control devices, PTC system, and audio, video and other recording devices concerning operations.

B. Inspection of Locomotive-Mounted Safety Devices
The engineer must make a visual inspection of accessible safety devices in the controlling locomotive cab, nose or vestibule, or in the cab control car when taking charge of a locomotive or train to ensure that:

- Nothing interferes with their intended function.
- Switches and breakers controlling the devices are in proper position.
- Seals, as appropriate, are properly applied.
- There is no apparent damage to the device.

If any exceptions are detected, immediately report them to the train dispatcher.

C. Operation of Trains with Defective or Disabled Locomotive-mounted Safety Devices
Locomotives or cab control cars with defective or disabled safety devices must not be operated as the controlling unit unless:

- Provided for in the operating rules,
  or
- Authorized by the train dispatcher.

Rule : 1.27 Divulging Information
Add new last sentence reading :
Employees are responsible for all activity with their assigned User ID's and are responsible for protecting the confidentiality of information accessed. Sharing passwords is prohibited. Unauthorized use of another person's User ID and password is prohibited.

1.33 - Inspection of Freight Cars
Change last paragraph to read:
A freight car with three bad order tags indicating that the car is safe to move may be moved to the nearest car repair point. A crew member will remove one bad order tag from the side with two tags. The crew member who removed the tag will use the written information from the tag to inform other crew members of the restrictions.

Application:

1. When a defect is discovered, note the type of defect on proper tag and attach a tag on each side of the car.
2. Open top rail equipment loaded with wood chips or bark must be covered with approved netting.
3. When applicable, inspections required by Hazardous Materials Instructions must be completed.

Rule : 1.37 Open Top Loads
Change (combine) third and fourth bullets as shown:

- Occupied locomotive or occupied caboose.

1.47 - Duties of Crew Members
Change rule to read:
The conductor and the engineer are responsible for the safety and protection of their train and observance of the rules. They must ensure that their subordinates are familiar with their duties, determine the extent of their experience and knowledge of the rules, and instruct them, when necessary, on how to perform their work properly and safely. If any conditions are not covered by the rules, they must take precautions to provide protection.

When the conductor is not present, other crew members must obey the instructions of the engineer concerning rules, safety, and protection of the train.

A. Conductor Responsibilities

1. Supervises the Operation

The conductor supervises the operation and administration of the train (if trains are combined with more than one conductor on board, the conductor with the most seniority takes charge). All persons employed on the train must obey the conductor's instructions, unless the instructions endanger the train's safety or violate the rules. If any doubts arise concerning the authority for proceeding or safety, the conductor must consult with the engineer who will be equally responsible for the safety and proper handling of the train.

2. Restrictions on Equipment

The conductor must advise the engineer and train dispatcher of any restriction placed on equipment being handled.

3. Calling Attention to Restrictions

The conductor must remind the engineer that the train is approaching an area restricted by:

- Limits of authority.
- Track warrant.

- Radio speed restriction.
  or
- Track bulletin.

The conductor must inform the engineer after the train passes the last station, but at least 2 miles from the restriction.

4. Freight Conductors

Freight conductors are responsible for the freight carried by their train. They are also responsible for ensuring that the freight is delivered with any accompanying documents to its destination or terminals. Freight conductors must maintain any required records.

5. Conductor Report Form

UPRR crews operating on a foreign railroad are required to properly complete a UPRR form or a foreign railroad form as required by UPRR rules. Foreign railroad crews operating on the UPRR are governed by that railroads rule concerning awareness forms.

"Conductor Report Form" (FORM 20849) must be maintained as follows**(also see Item 10-K):**

a. Road freight conductors, including locals and switchers but not including yard or passenger conductors, are required to complete the Conductors Report. However, yard conductors performing road service on the main track (transfer, relief service, etc.) will be required to complete the Conductors Report Form.

Remote control operators are not required to maintain a Conductor Report Form except when required by Item 10-K.

The report will include:

- The name of other than Clear wayside signals, speed of the train as head end passes and, as appropriate, a "Z" or "X".
- After passing an Approach or Diverging Approach signal the next wayside signal must be entered regardless of signal indication including the speed of the train (even if the signal is Clear).
- Train defect detector results from all detectors (except "%" detectors) and mile post. "X" will identify in cab communication of results.
- Approaching temporary speed restrictions that affect the train. (Enter speed of restriction on form).
- Approaching the end of authority unless additional authority has been granted to continue on the main track. If the additional authority contains a Box 2 (after arrival) it must be included on the form.
- Train delays.
- Restricted Speed documentation. Every 2 miles that the train is operating at Restricted Speed, enter mile post location, time, train speed, a "Z" to indicate that the information was communicated between crew members and amount of air brake application if any, (None, Minimum, 10#, etc.).
- On the main track in non-signaled territory, the time, train's milepost location, and speed every 5 miles and record an" X" to indicate the information was communicated between crew members. (Comply with bullet 7 if operating at Restricted Speed).
- On Subdivisions with a "CG" location (as listed in SSI Item 8), record the time and speed of the train as the train crests the grade. Enter an "X" to indicate the information was communicated between crew members.

Entries will be made when head end of train is at or about the mile post location of required entry. Entries will be sequential and legible.

EXAMPLES:

LOCATION	SIGNAL NAME OR TDD ANNOUNCEMENT	TIME	COMMENTS & DELAYS
87.3	AA	0535	X - 52 MPH
89.1	A	0543	Z - 33 MPH
Y091	S	0558	X - Stop - 8" delay
92.5	RP	0617	Z - 12 MPH
94.5	RS	0625	Z - 8 MPH - None
101.3	TSR	0643	Z - 30 MPH
103.3	ND	0657	X
115.0	XH	0715	Z - 15 MPH
129.0		0755	PU - 8 cars - 30"
135.0	EA	0840	Z

Note :

1. Abbreviations may be used. e.g. (Advance Approach = AA; Diverging Clear = DC; Diverging Approach = DA; Approach = A; Approach Diverging = AD; Restricting = R; Restricted Proceed = RP; Stop = S; Speed Restriction (temporary) = TSR; End of Authority = E/A; Crossing Restrictions (received enroute) = XC, XI, XH, XG; Cab Red Zone = Z; In-Cab Communication = X; ND = No Defects; Restricted Speed = RS.

2. Enter MP location where Cab Red Zone begins and/or in-cab communication takes place when other entries are required. However, entry may be made with signal entry when passing signal.

3. Enter delays.

b. The conductor's report must be completed (and signed on the last page to signify report is complete and accurate) on each trip or tour of duty. If the form is not available, record the information as required. Reports of the last 5 round trips (a minimum of 5 days) must be kept in your possession while on duty, and presented to a Manager upon request.

c. Do not erase information entered on the form. If an error is made, cross out the entry and write the correct entry.

d. Conductors with a valid Class 1 "Certificate to Operate Locomotives": When conductors with a valid Class 1 "Certificate to Operate Locomotives" are allowed to operate the engine the time and location (beginning and ending) will be noted on the conductors report form. Entries on the form will not be required during this time period except entries required by Item 10 K.

B. Engineer Responsibilities

1. **Operating the Engine**
   The engineer is responsible for safely and efficiently operating the engine. Crew members must obey the engineer's instructions that concern operating the engine. A student engineer or other qualified employee may operate the engine only under the direct and immediate supervision of the engineer. The engineer must closely monitor the employee's performance. The engineer must be in a position to take immediate action as necessary. Employee that operates an engine must have a current certificate in their possession.

2. **Special Handling**
   The engineer must check with the conductor to determine if any cars or units in the train require special handling.

C. All Crew Members' Responsibilities

1. Crew Members in Control Compartment

Crew members in the control compartment must communicate to each other any restrictions or other known conditions and required actions that affect the safe operation of their train sufficiently in advance of such condition to allow the engineer to take proper action. If proper action is not being taken, crew members must remind engineer of such condition and required action.

Crew members in the control compartment must be alert for signals. Crew members must:

- Communicate clearly to each other the name of signals affecting their train as soon as signals become visible or audible.
- Continue to observe signals and announce any change of aspect until the train passes the signal.
- Communicate clearly to each other the speed of the train as it passes a signal with an indication other than Clear.
- Immediately remind the engineer of the rule requirement if the signal is not complied with.

2. Radio Transmission

Except when switching, a crew member must transmit the engine number, direction, location and speed:

A Every 2 miles when operating at Restricted Speed.

B Every 5 miles when operating on the main track in PTC territory when PTC is inoperative/defective.

C When approaching the end of authority in non-PTC or when PTC in inoperative/defective unless additional authority has been granted to continue on the main track. Transmission must occur 5 miles in advance of the end of authority, 2 miles before end of authority, 1 mile before end of authority, and when stopped at end of authority.

D When head end of train passes a signal that requires:

- Being prepared to Stop at the next signal.
- Being prepared to pass next signal at Restricted Speed.
  or
- Restricted speed.

E When movement stops for a signal that requires stopping.

Transmission for signals must include signal name (include track number in multiple main track CTC territory).

Note: Instructions may be issued to identify locations where this radio transmission is not required.

3. Proper Action

If engineer and/or conductor fail to comply with a signal indication or take proper action to comply with a restriction or rule, crew members must immediately take action to ensure safety, using the emergency brake valve to stop the train, if necessary.

4. Performing Work

Before work is performed at a location, the crew must discuss how the work will be performed, which switches/derails will be used, what method will be used to pass signals, close clearances and any other safety related concerns. When work is completed, the crew will confirm that work was completed as planned, switches and derails are in proper position and any unforeseen safety concerns are properly reported.

1.47.1 - Cab Red Zone
Add new rule:
During a Cab Red Zone (CRZ), an environment must be created in the locomotive control compartment that focuses exclusively on controlling the train, verbally communicating restrictions, and proper application of the rules. Crew members must be in the control compartment unless required to perform other duties (i.e. to operate switches, be at a road crossing, passenger train duties, etc.).

A Cab Red Zone exists during critical times such as:

- Operating at Restricted Speed. (Does not apply when switching.)
- Operating on a block signal indication less favorable than Advance Approach.
- Copying mandatory directives.
- Approaching a Form B restriction.
- Approaching a temporary speed restriction that affects the train.
- Approaching the end of the train's authority.

The following restrictions or conditions are required during a Cab Red Zone:

- Cab communication is restricted to immediate responsibilities for safe train operation.
- Radio communication with the dispatcher or other employees must be limited to the train's immediate movement or conditions that affect the safety of trains.
    - When operating in PTC territory and the PTC system is engaged, radio communications are limited only when operating at restricted speed or when the system is in a non-enforcement state.
- A crew member other than the employee operating the controls will be required to handle radio communications when that crew member is in the control compartment.
  Exception: Rule 33.6.1 (Operating Responsibilities with Manned Helper.)
- If proper action is not being taken, crew members must remind each other of the Cab Red Zone and/or take appropriate action to stop the train.

Application: As contained within this rule, approaching is defined as two miles from the restriction or end of the train's authority.

1.47.2 - Training and Familiarization
Add new rule:
Employees assigned to a position for the purpose of training or familiarization, as required by System Special Instructions Item 7-B, must be under the direct and immediate supervision of a qualified employee at all times. The qualified employee must closely monitor the employee's performance and must be in a position to take immediate action as necessary. Any employee requiring certification must have a current certificate in their possession.

Rule : 2.1 Transmitting
Application:
Normal Dispatcher Call-in Procedure
To contact the train dispatcher from the field:

1. Ensure that you are on the correct dispatcher radio channel for the area you are in. The radio channel is identified in timetable subdivision instructions under Radio Display (SI-RD).

2. On the radio key pad, dial "*" plus the 2-digit code for the dispatcher you wish to call. (For example, "*20").

Note: After dialing the "*XX" digits, you should receive an acknowledgment tone on your radio indicating the call-in has been detected and processed. If you do not hear the acknowledgment tone you will need to re-dial the code.

2.2 - Required Identification
Delete part reading:
If communication continues without interruption, repeat the identification every 15 minutes.

Application:
During switching operations, short identification must be unique enough to ensure no misunderstanding as to whom the communication is intended for or could be misinterpreted. Job numbers alone could be misinterpreted as car counts, track number or other equipment etc. "10 back up 5" must not be used. Instead use "Job 10 back up 5 cars; Yard Job 10 back up 5 cars" or "DY10 back up 5 cars".

Rule : 2.3 Repetition
Add as last paragraph:

When a mandatory directive or instruction concerning train movement has been repeated correctly, the repeat must be acknowledged as correct.

2.5 - Communication Redundancy
Add application to read:

Application:
Use of a wireless communication device for voice communication by railroad operating employees while inside the cab of a controlling locomotive on a moving train or when fouling a track is prohibited unless usage is due to radio malfunction and all crew members agree it is safe to use.

Rule : 2.10 Emergency Calls
Application:
Emergency Call-in Procedure

The Emergency call-in code is "911" throughout the entire UPRR system. To contact the train dispatcher in case of an emergency:

1. Ensure that you are on the dispatcher's radio channel for the area you are in. The radio channel is identified in timetable subdivision instructions under Radio Display (SI-RD).

2. Dial DTMF digits "911" on the radio key pad.

Note: After dialing the "911" digits, you should receive an acknowledgment tone on your radio indicating the emergency call-in has been detected and processed. If you do not hear the acknowledgment tone you will need to resend the "911" code.

-

2.14.1 - Verbally Transmitting and Repeating Mandatory Directives
Change rule to read:

When transmitting and repeating mandatory directives, numbers must be spoken by digit (zero, one, two, three, etc.). However, exact multiples of hundreds and thousands may be stated as such (600 = six hundred). A decimal point must be spoken as "point", "dot", or "decimal", and a hyphen must be spoken as "dash".

2.21 - Electronic Devices
Change rule to read:

The restrictions in this rule apply to both the use of railroad-supplied and personal electronic devices by railroad operating employees and does not affect the use of railroad radios under FRA regulations. A railroad operating employee shall not use an electronic device if that use would interfere with the employee's or another railroad operating employee's performance of safety-related duties. No individual in the cab of a controlling locomotive shall use an electronic device if that use interferes with a railroad operating employee's performance of safety-related duties.

Railroad-Supplied and Personal Electronic Devices

- Electronic devices may be used to respond to an emergency situation involving the operation of the railroad, an emergency encountered on duty, or when necessary due to a radio malfunction.
- Electronic devices may be used while deadheading in a non-controlling locomotive or automobile, limo, etc., or when in the body of a business car or passenger train and use will not interfere with any railroad operating employee's personal safety.
- Electronic devices must not be used to verbally obtain or release a mandatory directive when radio communication is available.
- A stand-alone calculator may be used.
- A digital watch whose only purpose is as a timepiece may be worn while on duty.
- Medical devices may be used that are consistent with railroad's standards as necessary in the performance of duties.

Crew members are jointly responsible for compliance with the appropriate use of electronic devices.

Railroad-Supplied Electronic Devices
Employees issued a railroad-supplied electronic device must log into the system at the start of tour of duty and must remain logged in until completion of tour of duty for authorized business purposes such as:

- Timely, automated updating or transmission of information.
- View or modify switch lists, track lists, work orders, etc.
    - Note: For Reporting Completion of Work, refer to System Special Instructions Item 15.
- Exchange work related information with railroad supervisors, dispatchers, customers, NCSC, or customer service employees.

- Receiving or releasing Track Warrant authority when PTC system is inoperative or lead locomotive is not PTC equipped.
- Taking a photograph of a safety hazard, defect, or a violation of a rail safety law, regulation, order, or standard. The camera function must be turned off immediately after the photograph is taken and the camera is not used by an employee at the controls of moving equipment.

As outlined above, railroad operating employees may use a railroad-supplied electronic device outside the cab of a controlling freight locomotive only if the employee is not fouling a track and all crew members agree it is safe to use.

The use of railroad-supplied electronic devices by an engineer while operating the controls of a locomotive is prohibited:

- While on a moving train, unless device use is directly related to the movement of the train, i.e. to reference a railroad rule, special instruction, timetable, or other directive.
  or
- When any crew member (including utility employees) is working on the ground, or riding rolling equipment during switching operations, or when any other employee is assisting in the preparation of the train.
    - These prohibitions also apply to other operating employees in the locomotive cab unless a safety briefing is conducted, and all agree it is safe for other operating employees to use.

The assigned employee is responsible for the device and care must be taken not to lose or damage the device. A railroad-supplied electronic device must not be used for purposes other than which it was intended.

Railroad-supplied electronic devices must be powered off with any earpiece removed from the ear and stowed when not in use as outlined above.

At the end of tour of duty, the device must be returned to the pool device location and remain on and plugged into a charger. If a device is assigned to an employee or the employee is staying at the away from home terminal, the assigned employee needs to ensure the device is left on and charging for use on their next tour of duty.

Personal Electronic Devices

A. Prohibited Use:

Personal electronic devices are prohibited from use while on duty in safety-related situations and must be turned off and stowed with any earpiece removed from the ear. Except as described below, use by any crew member in the cab of a controlling locomotive is prohibited when:

- On a moving train, (except as described below under Permitted Use).
- Any member of the crew is on the ground or on moving equipment.
- Any railroad employee or authorized individual is inspecting or assisting in preparation of the train, engine or on-track equipment for movement.

B. Permitted Use:

Use of a personal electronic device at any time must not result in delays or interfere with safety-related duties of any crew member, other employees, or personnel. After conducting a safety briefing, and agreeing the use of the device is safe, a personal electronic device may be used as follows:

- In the cab of a controlling locomotive while moving to reference a railroad rule, special instruction, timetable, or other directive provided the wireless capability of the device is disabled. The device must not be used by an employee at the controls of moving equipment.
- A camera may be used to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order or standard provided it is a standalone camera. A camera that is part of a cell phone or other similar multi-functional electronic device is not included in this exception unless it is a railroad-supplied device and is used for an authorized business purpose. The camera must be turned off immediately after the photograph is taken and the camera is not used by an employee at the controls of moving equipment.
- In the cab of a controlling locomotive while stopped, or when in a crew room or other designated location for voice communication, texting or to update railroad rules, special instructions, timetables, directives or other company provided electronic documents. An electronic device may be used for other purposes, including accessing the internet for personal use when:
    - All job related duties have been completed.
    - All assigned online training items have been completed.
    - All broadcast messages contained in My UP portal have been read and acknowledged.

Rule : 5.2.1 Looking for Signals
Application:

Engineering department employees performing lookout duties (wearing a yellow/greenvest with orange reflectorized striping, with "Lookout" printed on the vest) may be communicating with their work group with a white flag. This white flag is not a signal to the train, rather a signal to the work group that an approaching train has been spotted.

Rule : 5.3.7 Radio Response
Delete entire rule.
Rule 5.4.4
Change Title and Rule To Read:
Rule 5.4.4: Reserved

Rule : 5.4.8 Flag Location
Application:

In three or more main track territory, flags will be displayed to the right of center tracks (inside tracks) where clearance allows.

Rule : 5.5 Permanent Speed Signs
Application:

The location of permanent speed signs are:

- 2500 feet ahead of the restriction (Arrow-shaped signs).
- 2 miles ahead of the restriction (Square or rectangular signs).

5.8.1 - Ringing Engine Bell

Add the following bullets:

- When moving on the main track or siding, ring bell continuously while passing standing equipment on an adjacent track.
- When moving in a designated mechanical facility, ring bell continuously.

5.8.2 Sounding Whistle
Add second sentence to first paragraph.
First paragraph now reads:

The whistle may be used at any time as a warning regardless of any whistle prohibitions. When approaching areas where it is known employees are working or seen on a track adjacent to a main track or siding, sound warning.

5.8.2 Sounding Whistle
Change (1) and add to (7) to read:

SOUND	INDICATION
[1] Sound whistle to attempt to attract attention to the train.	Use when persons or livestock are on the track at other than road crossings at grade. Use when within quiet zones when engineer believes such action is appropriate. When unable to determine an employees work group, sound signal 5.8.2 (8).
[7] - - o -	Addition: At locations where crossing signs are displayed sound whistle as required above regardless of the type of crossing train is approaching. In the states of California and Montana sound whistle signal at all crossings, public and private.

5.9.5 Displaying Ditch Lights
Application:
The term "ditch lights" includes oscillating white headlights or strobe lights located on the front of the locomotive. Ditch lights on some foreign locomotives are configured to operate only when the horn is activated. Ditch lights which operate in this manner will be considered as meeting the requirements of this rule. When a remote control locomotive is being controlled with a remote control transmitter, the ditch lights need not be displayed if speed does not exceed 20 MPH. Ditch lights are not required on steam locomotives. Failure of two ditch lights includes employee failure to turn on the ditch lights.

5.10 - Markers
Application:
Before departing the initial terminal, crew members must know the initials and number of the car that has the marker applied or unit number, when the engine at rear of the train is used as the marker. This can be done verbally by the employee making

the initial terminal air brake test, or included on the written notification of the test. If the rear car changes, crew members must record the initials and number of the car having the marker applied before the train departs.

When a train is set out clear of the main track at other than a crew change location, a crew member must remove the End-of-Train (EOT) telemetry device, if so equipped. Transport the EOT on the engine to the destination where the crew is relieved.

If the engine remains with the train, a crew member must deliver the EOT to the proper authority at the tie-up point. However, proper authority may advise the crew to leave the EOT with the train. Always notify the train dispatcher of the location of the EOT.

Do not place an EOT on a locomotive unless it is attached to the coupler. Crew members are responsible to ensure the EOT is placed in the correct location at yards/terminals.

Rule : 5.11 Engine Identifying Number
Change rule to read :
Trains will be identified by initials and engine number. The identifying number will be the number of the lead unit, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number.

Exceptions:

- Where PTC is not in effect, the identifying number will be the number of the lead unit, unless changing direction during a trip or tour of duty when that unit is no longer the lead unit.
- Where PTC is in effect, passenger trains operated from a cab control car on the leading end of the movement will be identified by the cab control car initials and number, adding the direction when required.
- On track bulletins that advise about excessive dimension equipment, trains may be identified by train symbol.
- On track bulletins and on track warrants that do not convey movement authority, passenger trains may be identified by schedule number.

Rule : 5.13 Blue Signal Protection of Workmen
Part C. 2.
Add second sentence to read:
A blue tag must be placed on the switch governing remote/manual operation.

Part C.3.
Add note after diagram reading:

Note:
Remote control locomotives may be in remote mode while under blue signal protection to service remote control locomotive equipment/functions when the following requirements are met:

1. The employee placing the locomotive in remote mode has been trained to repair and operate remote control equipment.
2. All employees involved on the unit and/or tracks are job briefed and warned against possible inadvertent movement of the locomotive.

5.14.1 - Contractor Protection for Servicing Locomotives

Add new rule :

5.14.1: Contractor Protection for Servicing Locomotives

When contractors are working, on, under, or between equipment, the contractor will place a red flag in a location that can be clearly seen from the cab of the controlling engine. When employees take charge of an engine, they must visually determine if a red flag is displayed. When a red flag is attached to an engine, unless directed by the contractor, the following are prohibited:

- Changing controls or brake settings.
- Turning on or off switches (except overhead cab lights).
- Changing circuit breakers.
- Starting or shutting down the engine.

6.2 - Initiating Movement

Add:

When operating with a Track Condition Summary (TCS), and the PTC System is NOT in the ACTIVE or DISENGAGED state (including operating in non-PTC territory or operating per Rule 18.13), a crew member must contact the train dispatcher to verify TCS is operative. Verification may occur before or after departure.

Rule : 6.2.1 Train Location

Change Rule To Read :

Trains who receive authority to occupy the main track after the arrival of a train or to follow a train, must ascertain the train's location by one of the following methods:

- Direct communication with a crew member of the train.
  or
- Receiving information about the train from the train dispatcher or control operator.

6.3 - Main Track Authorization

Add a new bullet reading:

- Rule 9.14.2 (Controlled Block System CBS).

Change bullet reading:

- At manual interlockings, verbal authority from the control operator or a controlled signal that indicates proceed.

To read:

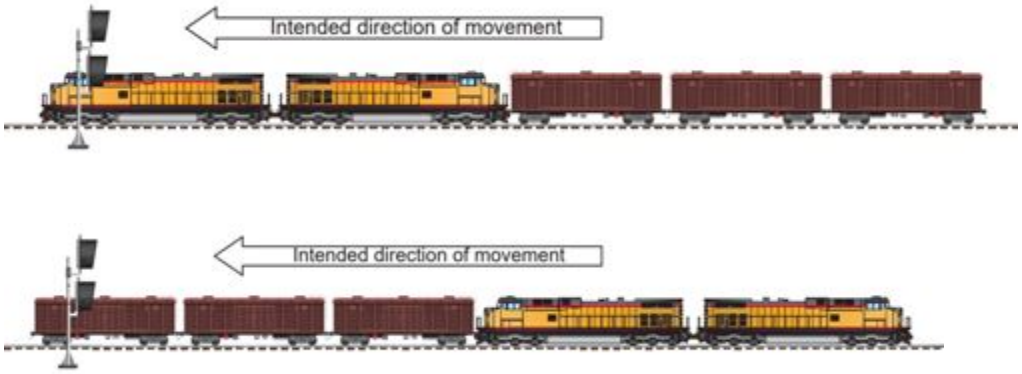
- At manual interlockings, authority from the control operator or a controlled signal that indicates proceed.

Add the following paragraph under Joint Authority:

When a train receives joint authority, movements must be made at restricted speed.

6.4.2 - Movements Within Control Points or Interlockings

Change Part A (Control Point or Manual Interlockings) to read:



A. Control Points or Manual Interlockings

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

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

6.5 - Shoving Movements
Change rule to read:
Providing Protection Prior to Initiating Shoving Movement
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.

Engineer and employee protecting the movement must complete a job briefing concerning how protection will be provided.

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

- **WHO** will protect the shove.
- **HOW** the shove will be protected. (Riding on equipment, walking, positioned ahead, etc.)
- **DIRECTION** - *described in relation to the orientation of the controlling locomotive, i.e. forward, backward, or north, south, east, west.*

- **DISTANCE** to be shoved. *Must be acknowledged when distance is more than four cars.*

When communicating distances, the number of car lengths given to the engineer must not exceed 30 when an employee is riding a car to protect a shoving movement.

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

Employee directing movement must provide visual protection for the equipment being shoved and must not turn their back on the movement.
In addition, employee directing movement:

- May utilize camera(s) to provide visual protection when Superintendent Bulletin specifies tracks that will be protected with camera(s).
- Is not required to observe the leading end of the movement:
    - When Superintendent Bulletin specifies tracks that will be protected with Shove Lights.
    - When making back up movements in accordance with Rule 6.6 (Back Up Movements)
    - After a track has been pulled and cars or equipment of equivalent or less length will be immediately shoved back into the track and it is visually determined the track is clear to the location where movement will be stopped.

Participating employees must not engage in unrelated tasks during the shoving movement. Shoving movements over road crossings must be made in accordance with Rule 6.32.1 (Providing Warning Over 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.

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

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

- Operating in severe weather conditions such as high winds, hail, heavy rain or snowfall, extreme cold/heat, or when advised of tornado or thunderstorm warning.
  or
- It is necessary to sound the whistle.

When operating in pitch and catch mode and making a shoving movement, the primary operator must be in position to protect the point of movement. This does not prevent a utility employee, not equipped as an RCO, from protecting the point of the movement.

Exception: After conducting a job briefing with the employee who will be protecting the point, the primary operator is not required to pitch control when:

- Stretching a track to ensure couplings are made.
  or
- Separating equipment to make coupler adjustments.

When requesting pin slack, the employee uncoupling the equipment is not required to be the primary operator.

Relief of Providing Protection

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

1. The remote control zone has been activated.
2. The remote control zone has been properly verified / swept to determine:

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

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

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

3. Pulling out of a track directly connected to an activated zone and all switches traversed are included in the zone. Bell must be sounded continuously until locomotive occupies activated zone track.

Rule : 6.5.2 Movement of Light Remote Control Locomotive
Add new rule:
Unless relieved of providing protection, the primary operator must take a position on the leading end of a light remote control locomotive consist or be positioned on the ground clear of the movement and able to observe the entire movement before initiating the movement.

6.6 - Back Up Movements
Change rule to read:
After obtaining permission from the train dispatcher, a train may back up on any main track or on any track where CTC is in effect under the following conditions:

1. The crew ensures movement will not:
   a) Exceed the limit of the train's authority.
   b) Exceed the train's length.
   c) Enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).
   d) Be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade, or track bulletin Form B limits.

2. The train dispatcher grants permission to make the movement after verifying the following within the same or overlapping limits:
   a) Another authority is not in effect unless conflicting movements are protected.
   b) A track bulletin Form B is not in effect.
   c) The main track is not removed from service.
   d) Track Breach Protection is not in effect.
   e) Permission to leave a switch in the reverse position has not been granted.

When movement is made under these conditions, restricted speed does not apply.

Before a crew requests and makes a move under this rule, a job safety briefing between crew members must be conducted that includes:

- Confirmation of authority limits.
- Location of nearest affected road crossings in direction of movement.
- Distance to be shoved.
- Confirmation that train is intact, verified either visually or by determining that brake pipe continuity exists using EOT device or distributed power telemetry.

6.7 - Remote Control Zone

Application of part A. Entering Remote Control Zone:

Timetable special instructions will designate limits of remote control zones. Signs will be posted at access locations to remote control zones. When an RCL movement makes a pullout move from a directly connected track into an activated zone, zone limits include the track between the leading end of the locomotive and the activated zone when all switches traversed are included in the zone. Remote control zone limits do not include tracks within CTC or interlocking limits (CTC or interlocking rules apply). Only the remote control operator may activate a zone. However, timetable special instructions may designate the hours a zone is active. Proper records must be maintained concerning activation, deactivation and transfer of the zones at locations where a designated supervisor may be contacted to determine if a zone is active.

Record must include:

- Job designation.
- Zone number.
- Date and time zone activated.
- If applicable, time zone transferred and job designation of other remote control job. Transfers from one job to another do not need to be recorded unless the transfer involves a job that is going off duty or will not again control the active zone. All active zones must be transferred to a new zone log.
- Date and time zone deactivated.

Remote control operators may allow only one other train or engine movement to occupy the limits of their active zone at one time. When that train or engine is clear of the zone with switches properly lined, it must report directly to the remote control operator. If it is necessary for other train or engine movements to enter the limits of the active zone during that time, the zone must be deactivated.

Engineering employees may use Individual Train Detection (ITD) in an active Remote Control Zone, when performing work without equipment. A job briefing must take place between the RCO and the engineering employee. The job briefing must include one of these options:

- Remote control movements will stop until the engineering employee completes the task and reports clear.
  or
- RCO must provide protection for all movements.

Engineering or mechanical department employees, with equipment, must not enter or foul the track within an active zone. If necessary to enter the zone limits, the zone must be deactivated.

B. Transfer of an Active Remote Control Zone
Add:
After a zone equipped with pull back/stop protection (PSP) is transferred from a job that is going off duty, the relieving crew must verify PSP is operational by traversing at least one puck and observing the activation on the OCU at the first practical time after the start of each shift, but not more than 2 hours after start of that shift.

Refer to Rule 35.4.2 Remote Control Transmitter Testing, part B, when linked RCTs are transferred.

Rule : 6.19 Flag Protection
Application:
Flagging distance is 2 miles.

6.20 B. Equipment Left on Main Track
Application:
A train must not be left on the main track in non signaled territory unless protected by one of the following:

1. Yard Limits.
2. Track Warrants.

- The train dispatcher may request the release of the crew's track warrant and inform crew that protection has been provided.
- After being informed that protection has been provided, the following procedure must be followed:
  - Crew will state: "(Train ID) is stopped between MP___ and MP___ on main track (Subdivision). Protection has been provided."
  - Dispatcher will state: "(Train ID) that is correct."

A crew member will then release their track warrant.

6.21 - Precautions Against Unusual Conditions
Change third sentence in third paragraph to read:
If movement cannot proceed safely, must stop until it is safe to resume movement.

Add:
When notified Flash Flood (FF) warning in effect, comply with Procedure FF at or within the specified limit(s) as outlined below:

- Proceed prepared to stop short of washout or debris on track.
- Be governed by Rule 6.21 and Rule 6.21.2.

When notified High Wind (HW) warning in effect, unless otherwise authorized by the train dispatcher, comply with Procedure HW at or within the specified limit(s) as outlined below:

- All train movements approaching limits must stop before entering limits. (If closely approaching limits, stop consistent with proper train handling.)
- Freight trains within limits may operate not exceeding 10 MPH, prepared to stop short of obstructions or debris on track. (Immediately reduce speed, when necessary, consistent with proper train handling when notified.).
- Passenger trains within limits must stop.
- All train movements within limits must stop when actual or predicted sustained wind or gust speeds are 120 mph or greater.

Note: High Wind (HW) warnings will only be issued to affected trains based on blow-over limit.
Rule : 6.21.3 Track Obstruction/Unusual Conditions
Change Rule to Read:

When a train is instructed by the Train Dispatcher in the words, "BETWEEN (location) AND (location) BE GOVERNED BY RULE 6.21.3", within specified limits, train must proceed at a speed which will permit stopping short of slide, rock, washout or debris on track.

6.23 - Emergency Stop, Severe Slack Action, or Actuation of a Shifted Load or Dragging Equipment Detector
Change rule to read:
When a train or engine is stopped by an emergency application of the brakes, severe slack action occurs while moving or stopping, or a train actuates a shifted load or dragging equipment detector take the following actions:

Obstruction of a Main Track(s) or Controlled Siding(s) - Application:
If an adjacent main track(s) or controlled siding(s) may be obstructed, immediately:

- Warn other trains by radio by stating, 'Emergency, Emergency, Emergency;' and give the exact location and status of the train and repeat as necessary.
- Place lighted fusees on adjacent track(s).
- Notify the train dispatcher or control operator and, when possible, foreign line railroads if necessary.

- Ensure you are on the dispatcher's radio channel for the area you are in and dial DTMF digits '911' on the radio key pad.
- If no acknowledgment of emergency call-in is received, resend the '911' code.

Warning to other movements is no longer necessary when:

- It is known adjacent track(s) are not obstructed.
  or
- The train dispatcher or control operator advises the crew that protection is provided on adjacent track(s).

Train on Adjacent Track
A train on an adjacent track that receives radio notification must pass the location specified at restricted speed and stop short of any portion of the stopped train fouling their track. When advised that the track is clear and it is safe to proceed, this restriction no longer applies.

Inspection of Cars and Units:
Visual inspection of the train must be made on each side of all cars, units, equipment, and track to ensure they are in a safe condition. Make sure the marker is attached to the designated rear car. Before proceeding, check the proper positioning of all wheels on the rail.

A. Emergency Application of the Brakes When Initiating Movement
When initiating movement of a train that has been stopped and an emergency brake application occurs, if a train separation is discovered during the inspection, further visual inspection is not required when device located at rear of train indicates brake pipe pressure is being restored after re-coupling train.

B. Emergency Application of the Brakes / Severe Slack Action When Moving or Stopping

1. An inspection of the entire train must be made while stopped if:

   - Train is a Key Train.
     or
   - Severe slack action or train separation occurred.

   If physical characteristics prevent a complete visual inspection while stopped, inspect as much of the train as possible. The train may then be moved, but may not exceed 5 MPH for the distance necessary to complete the inspection, and must be stopped immediately if excessive power is required to start or keep the train moving.

2. When all of the following conditions are met, train may be moved not exceeding 5 MPH under direct observation of crew member or other qualified employee to assist with inspection. Train must be stopped immediately if excessive power is required to start or keep the train moving during inspection.

   - Train is not a Key train.
   - No severe slack action or train separation occurred.
   - Device located at rear of train immediately indicates that brake pipe pressure is being restored.
   - Train is not operating on rails with concrete ties.

- It has been verified adjacent track(s) are not occupied and no other movement on adjacent track(s) will be made until inspection has been completed.

3. Trains, other than Key Trains, that did not experience severe slack action or train separation, are relieved of visual inspection required by an emergency application when any of the following conditions are met and device located at rear of train immediately indicates brake pipe pressure is being restored. **

- Train is a solid loaded bulk commodity train.
- Train is made up entirely of well cars and/or five-platform articulated single-level spine cars.
- Train speed is above 20 MPH.
  or
- Train is 5000 tons or less.

  Stop immediately and inspect train if excessive power is required to start or keep the train moving.

  ** When a train line defect is corrected during the inspection, such as re-coupling an air hose, closing a stuck vent valve, etc., and device located at rear of train immediately indicates brake pipe pressure is being restored:
    - If operating on rails with concrete ties, train may be moved to complete the inspection not exceeding 5 MPH.
    - If operating on rails with wooden ties, no further inspection is required.

C. Shifted Load or Dragging Equipment Detector Actuation
After complying with instructions for Obstruction of Main Track(s) or Controlled Siding(s), the following applies:

- When emergency application of the brakes or severe slack action occurs, train must be inspected while stopped.
- If no emergency application of the brakes or severe slack action occurs, inspect as required in System Special Instructions, Item 13.

Rule : 6.26 Use of Multiple Main Tracks
Application:

Multiple main tracks are numbered as follows:

- On east-west subdivisions, track numbers increase from north to south, and the northern most track is No. 1.
- On north-south subdivisions, track numbers increase from west to east, and the western most track is No. 1.

Rule : 6.27 Movement at Restricted Speed
Application:

Train and / or engine speed must allow for movement to stop short of the obstructions listed consistent with good train handling.

Rule : 6.28 Movement on Other than Main Track

Application:

Train and/or engine speed must allow for movement to stop short of the obstructions listed consistent with good train handling.

6.29.1 - Inspecting Passing Trains
Change Grond Inspections to read:
When a train is stopped and is met or passed by another train, crew members must inspect the passing train. The inspection will be made from the ground if there is a safe location. If safe to do so, a crew member other than the engineer must cross the track and inspect the side of the passing train opposite the stopped train. When stopped, the crew member must detrain on the field side, the side away from the adjacent main track.

Inspection will be made from the cab of the locomotive:

- During snow and ice conditions that may cause slippery conditions underfoot when getting on or off.
  or
- When stopped at a location where it is unsafe to detrain or there is an adjacent main track on each side of the train (i.e. on track 2 in 3 main track territory).

Application:

When a trackside warning detector indicates a train defect, stop train according to instructions contained in Item 13.

Rule 6.29.2 Train Inspections by Crew Members
Change second sentence to read:
The train may then be moved, but may not exceed 10 MPH for the distance necessary to complete the inspection.

6.32 - Crossings
Change title to read:
6.32 - Crossings

6.32.1 - Providing Warning Over Crossings
Change title and rule to read:
6.32.1 - Providing Warning Over Crossings
An employee must be on the ground at the crossing to provide warning until crossing is occupied when shoving equipment (including non-controlling locomotives), kicking cars, or performing a gravity switch move over highway/pathway - rail grade crossings. Movement must only be made as directed by the employee providing warning at the crossing.

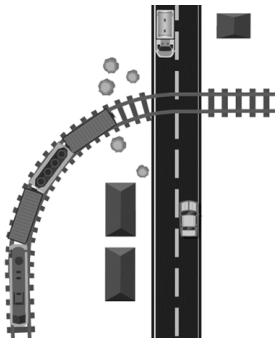
Within a yard, this only applies to crossings open to:

- Unrestricted public access.
  or

- Persons other than railroad employees performing normal duties.

Warning is not required when crossing is equipped with:

- Gates that are in the fully lowered position.
  or
- Flashing lights or passive warning devices (cross-bucks, stop signs, etc.) when it is clearly seen that no traffic is approaching or stopped at the crossing. Leading end of shoving movement must not exceed 15 MPH over crossings. Application: Stop movement before fouling crossing(s), and provide warning when visibility is limited due to riding location on equipment, weather or lighting conditions, vegetation, structures, etc.



6.32.2 - Crossing Warning Devices (Highway/Pathway - Rail Grade Crossings)
Change Rule To Read :

Under any of the following conditions, a movement must not foul a crossing equipped with automatic warning devices until the device has been operating long enough to provide warning and the crossing gates, if equipped, are fully lowered:

- Train, engine, and other such movements consisting of 12 physical axles or less. However, Self Propelled Engineering Department Track Geometry cars will be governed by Engineering Department instructions.
- Movement has stopped within 3,000 feet of the crossing.
- Movement is within 3,000 feet of the crossing and speed has increased by more than 5 MPH.
- Movement is closely following another movement.
- Movement is on other than the main track or siding.
  or
- Movement enters a main track or siding within 3,000 feet of the crossing.

Employees must observe crossing warning devices and report any that are malfunctioning, damaged, or missing by the first available means of communication to the:

- **Train dispatcher**
  or
- **Grade Crossing Safety Hot Line (800-848-8715).**

Notify all affected trains as soon as possible.

If equipped, when the white power-on light on the exterior of the signal house is not lit or when a strobe light on the exterior of the signal house is flashing, immediately notify the train dispatcher or Grade Crossing Safety Hot Line.

Notification:
When a crew receives notification that a crossing warning device may be disabled, malfunctioning, damaged, or missing, sound whistle signal 5.8.2(7) regardless of any prohibition and comply with the appropriate procedure.

Procedure XC or XI:
The train may proceed over the crossing not exceeding 15 MPH.

Procedure XH:
Unless otherwise instructed by signal employee in charge, train must approach crossing prepared to stop before entering crossing and if automatic warning devices are:

- Seen to be working* or when instructed by the train dispatcher or proper authority, proceed over the crossing not exceeding 15 MPH without stopping.
  * Crossing with broken gate(s) is considered as having working devices when the balance of the automatic warning devices are seen to be working.
  or
- Not working, comply with Procedure XG.

Procedure XG:
Unless otherwise instructed by signal employee in charge, train must stop before fouling crossing regardless of the condition of automatic warning devices. A crew member must be on the ground at the crossing to warn highway traffic. The train may proceed over the crossing as directed by that crew member.

Stopping is not required for Procedure XG or XH when the crew communicates with a flagger before fouling the crossing and receives confirmation that warning is being provided by:

- One equipped flagger who can provide warning for one direction of approaching traffic. Proceed over the crossing not exceeding 15 MPH without stopping until the head end of the train completely occupies the crossing.
  or
- Two or more equipped flaggers who can provide warning in all directions of approaching traffic. Proceed over the crossing at maximum authorized speed.

Flagger:
A flagger is a person other than a crew member who is equipped with a vest, shirt, or jacket of a high visibility color appropriate for daytime flagging such as orange, yellow, strong yellow green or fluorescent versions of these colors. At night, similar outside garments must be retro reflective. The flagger must have a red flag by day and a light at night.

"STOP" Sign and Crossing Warning Device Malfunction Sign:
Where a STOP sign or Crossing Warning Device Malfunction Sign (SSI Item 22) is located next to a road crossing, movement must stop at the STOP sign. Movement may proceed only after automatic crossing warning devices have been operating long enough to provide warning and crossing gates, if equipped, are fully lowered. If automatic crossing warning devices fail to

operate, a crew member must be on the ground at the crossing to warn highway traffic. The train may proceed over the crossing as directed by that crew member.

Resuming Maximum Speed:
When leading end of movement completely occupies the crossing, proceed at maximum authorized speed.

XC – Cars have been left closer than the required distance from the crossing.
XI – Due to broken crossbuck, stop sign, vegetation, etc.
XH – Automatic Crossing Warning Device False or Partial Activation.
XG – Automatic Crossing Warning Device Activation Failure or Disabled

Rule : 6.32.4 Clear of Crossings and Signal Circuits
Add as last paragraph:

When cars,engines or equipment are left on a siding or a main track closer than the required distance, the train dispatcher must be notified.

Application:
Referring to 250 feet:

- In Illinois, the distance is 500 feet.
- In Wisconsin, the distance is 330 feet.
- In Arkansas and Louisiana the distance is 300 feet.

6.32.7 - Road Crossings within Intermodal and Automotive Facilities
Add new rule:
Movements over crossings within intermodal and vehicle loading/unloading facilities will be made as follows:

- Shoving movements and locomotive consist movements, when not controlled from the cab nearest the direction of travel, must be protected by an employee on the ground at the crossing to warn traffic until the crossing is occupied. Make movement over the crossing only after warning has been provided. Note: Warning is not required when it is clearly seen that no traffic is approaching or stopped at the crossing.
- Movements with the engine in the lead, when controlled from the cab nearest the direction of travel, must ring the engine bell when approaching crossing. In addition, sound whistle as a warning when vehicles are stopped, closely approaching or crossing view is obstructed.

7.3 - Additional Switching Precautions
Change fourth bullet in first series of bullets to read:

- Loaded Autoracks.

7.4 - Precautions for Coupling or Moving Cars or Engines
Change rule to read:

Before coupling to or moving cars or engines, verify that the cars or engines are properly secured and can be coupled and moved safely.

Make couplings at a speed of not more than 4 MPH. Ensure coupling(s) are made, using engine to stretch slack if necessary. Before beginning shoving movement, ensure that all couplings have been stretched.

Rule : 7.4.1 Remote Control Couplings
Add new rule :
When using a remote control locomotive in 'pitch and catch' operations to make a coupling, the RCO located at the coupling must be the primary operator. This does not prevent a utility employee, not equipped as a RCO, from making the coupling.

Make couplings at a speed of not more than 2 MPH. Remote Control Operator must use speed selection of not greater than "Couple".
Do not use 'Coast' and independent brake override to make car couplings.

Note: When spotting cars at an industry that requires precision spotting of the cars the independent brake override may be used.

7.5 - Testing Hand Brakes
Change rule to read:
Employees must know how to operate the type of brakes they are using. When hand brakes must control or prevent movement, test the brakes to ensure that they are operating properly before using them. If hand brake is not operational, attach a bad order tag to hand brake wheel or lever.

Rule : 7.7 Kicking or Dropping Cars
Change rule to read :
Kicking or allowing cars to roll under their own momentum is only permitted at authorized locations and when it will not endanger employees, equipment, or contents of cars. This does not apply to crews actively humping cars.

When kicking cars, crew member must ensure that cars kicked are clear of and will remain clear of next track to be entered before track is fouled.

Dropping cars is prohibited.

Rule : 7.7.1 Gravity Switch Moves
Add :
A gravity switch may only be made where authorized by "Superintendent Bulletin" and manned hand brake must be located on the trailing end of the trailing car in the direction of movement.

Rule : 7.8 Coupling or Moving Cars on Tracks Where Cars are Being Loaded or Unloaded
Change 4th bullet under, "In addition:" part to read :

- Do not pull empty cars from an unloading facility until cables, straps, and other devices used to secure lading are secured and any major accumulation of debris is removed by the customer.

7.12 - Movements Into Spur Tracks
Change rule to read:
When shoving equipment into a spur track, control movement to prevent damage at the end of the track, and do the following:

- Stop movement 150 feet from the end of the track.
- Apply hand brakes, when necessary, to control slack when shoving cars.
- Have a crew member precede any further movement when it can be done safely.
- Move only on the crew member's signal.
- Stop movement short of end of track, bumper, chock, etc., unless it is necessary to shove equipment to the end of the track to properly spot equipment.
- When necessary, use extreme caution to avoid damage to equipment, track or structures.

7.13 Protection of Employees in Bowl Tracks
Change first paragraph to read:
During humping operations, before a train or yard crew member performs any work activities between bowl tracks , protection must be provided against cars released from the hump into the bowl track **that will be fouled** as follows:

8.2 - Position of Switches
Delete bullet reading:

- After locking a switch or derail, they test the lock to ensure it is secured.

As added by System Special Instructions, delete bullet reading:

- They do not go nearer than 5 feet of a switch while equipment is moving over it during switching operations.

8.8 - Switches Equipped with Locks, Hooks, or Latches
Add as new second sentence:
After locking a switch or derail, test the lock to ensure it is secured.

8.9.2 - Trailing Through and Stopping on a Spring Switch
Add:
Do not manually operate a spring switch when springs are compressed by wheels, except in an emergency. In an emergency, keep clear of the handle when it is released.

Rule : 8.19.1 Radio Controlled Switches
Change Rule To Read :

The location of Radio Controlled Switches (RCS) and operating instructions will be designated in timetable special instructions. When movement authority requires a train to stop at a RCS location, stop must be made before any part of a train passes the signal governing movement over the RCS.

At locations where radio controlled switches are installed, the following instructions apply.
RCS locations are equipped with:

- Dual control switch machines.
- Bi-directional switch point indicators per Rule 8.10.
- Occupancy (OS) circuits with limits marked by signs reading "Begin OS" and "End OS".

Signs reading "Switch Control' are located approximately 2 miles in advance of RCS locations.

Operating Instructions:
1. Upon passing a 'Switch Control' sign use the radio keypad to transmit the proper sequence (designated in the timetable) to request the desired switch position and receive radio transmitted verbal confirmation of switch alignment at that location.

2. Once radio confirmation of proper switch alignment has been received, movement through the RCS location must be made within 10 minutes of confirmation or the movement must approach the RCS location prepared to stop.

3. If radio confirmation of proper switch alignment is not received, movement must approach the RCS location prepared to stop until the switch point indicator can be clearly seen to indicate proper switch alignment. Notify the train dispatcher that radio confirmation was not received.

Stop and Inspect Switch
If the radio message received is "Switch Not Lined" or no radio message is received and the switch point indicator continues to display an indication to stop and inspect switch:

1. Movement must stop before entering the OS circuit limits.

2. After stopping, the RCS may be operated by unlocking the box on the side of the signal bungalow and using the push-button.

3. After push-button operation is attempted, if the switch point indicator continues to display an indication to stop and inspect switch, employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches).

Note: If the switch point indicator can be clearly seen to indicate proper switch alignment, the movement may proceed without stopping. Notify the train dispatcher of malfunction.

Movement Completely Through a Radio Controlled Switch Location
After movement has been made through a RCS location, the switch point indicator will display an indication to stop and inspect switch and the switch will remain in the normal position. If switch was reversed, it will return to the normal position.

Route Change
If necessary to change the route that was originally requested, movement must stop outside the OS circuit limits and:

- Wait 15 minutes and then enter the proper sequence to line the switch for the desired route.
- Wait 15 minutes and then operate the push-button on the signal bungalow to line the switch for the desired route.
  or
- Operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches) to line the switch for the desired route.

Additional Instructions
The RCS will not operate if the OS circuit at the RCS location is occupied. A proper sequence or push-button request must be made and confirmation of proper switch alignment must be received before movement enters the OS circuit limits at the RCS location.

8.20 - Derail Location and Position
Change first paragraph to read:
Employees in train, engine, and yard service must know the location of all fixed derails that affect their movement. Train or engine moving on or entering tracks where fixed derails are located, must stop at least 100 feet from derail in derailing position. Movement must not continue until the derail is placed in the non-derailing position. Do not leave equipment within 50 feet of a derail in the derailing position, when practicable. However, the distance restrictions will not apply in engine servicing or car shop repair areas.

Change last paragraph to read:
Derails that are used in conjunction with worker protection must be in the derailing position with proper flag displayed only when their use is required for such protection. When their use is not required for protection:

- Remove portable derails, then remove flag.
  or
- Lock fixed derails in non-derailing position with an effective locking device, then remove (take down) flag.

9.5.4 - Authority to Proceed
Change first paragraph to read:
Except when a signal is used to provide protection within CTC limits or at manual interlockings, control operators must not give hand signals or otherwise authorize movement beyond a Stop indication when a proceed indication can be displayed for the movement.

9.8 - Next Governing Signal
Change Rule To Read :

A train may comply with the next signal's indication when its aspect can be clearly seen and the signal governs the track where movement is occurring or will be made.

When the PTC display indicates the next governing signal will not require a stop, the train may proceed prepared to enter the next block complying with the signal indication governing that block.

This does not apply when a rule or previous signal indication requires movement at restricted speed.

9.9 - Train Delayed Within a Block
Change part B to read:
B. CTC or Manual Interlocking Limits
Proceed prepared to stop at the next signal until the next signal is visible and that signal displays a proceed indication.

Passenger trains operating in push/pull service must not exceed 40 MPH until the next signal is visible and that signal displays a proceed indication.

Add:
D. PTC
When the PTC display indicates the next governing signal will not require a stop, the train may proceed prepared to enter the next block complying with the signal indication governing that block.

Rule : 9.12.4 ABS Territory
Add:

D. Control Point Locations

At control point locations, if no conflicting movement is evident, a crew member must immediately contact the control operator for authority to pass the Stop indication unless the control point is within the train's track permit limits.

Add:
Application:
Examples of joint authority beyond the signal in Part A 1: Work Between, Yard Limits, Restricted Limits.

9.13 When Instructed to Operate Dual Control Switches by Hand
Change Rule To Read :

If the control operator cannot line the dual control switch to the desired position, or the control machine does not indicate that the switch is lined and locked, before authorizing movement the control operator and crew must have a clear understanding specifying:

- The control point.
- Route.
- Switch(s) that must be operated by hand.

The control operator may then authorize movement past the Stop indication and instruct the employee to operate the switch(s) by hand.

Movement may then proceed as authorized only after a clear understanding is reached with all crew members specifying the control point, route and switch(s) that must be operated by hand.

Before passing over a switch specified by the dispatcher, the train must stop and the employee must operate the switch by hand as outlined in Rule 9.13.1 (Hand Operation of Dual Control Switches). After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator. If any additional facing point switches are in the route, the crew must stop and verify the switches are lined for the intended route and the switch points fit properly.

9.13.2 - Performing Switching
Add new rule:

When necessary to place a dual control switch in hand operation to perform switching, the crew must:

- Complete a job briefing with the control operator on moves to be made.
- Receive authority to enter the control point.
- Receive permission to place the switch in hand operation.

Crew will then comply with Rule 9.13.1, except do not return switch to power until final movement has been made over the switch.

Notify the control operator when switch has been returned to power. Further movements must be made by signal indication or as authorized by the control operator.

Rule : 9.14.2 Controlled Block System (CBS)
Add new rule:

On tracks designated in the timetable, movements will run in the direction specified by verbal authority from the train dispatcher or a controlled signal displaying a proceed indication. This authority will establish the current of traffic for the movement. Before granting authority, the train dispatcher must know that conflicting movements are protected.

A train must not enter or occupy any track in CBS limits unless:

• A controlled signal indicates proceed.

or

• Verbal authority is granted.

A movement must proceed only in the direction authorized unless authority is granted by Rule 9.15 (Track Permit).

A movement authorized in one direction must report to the train dispatcher when it has cleared the main track within CBS limits. A movement that clears the main track within CBS limits must not reenter that track without new authority unless within Track Permit limits.

In CBS limits, Rule 9.15 (Track Permits) is in effect.

Rule : 9.15.1 Issuing Track Permits
Change second paragraph under Track Permit Acknowledgment part to read:

The employee will repeat the preprinted information and information transmitted by the train dispatcher including what has been entered in the summary, "This authority has (total number) boxes marked: (individual box numbers)."

Rule : 9.17 Entering Main Track at Hand-Operated or Spring Switch
Part A. When Hand Operation of a Spring Switch or 5 Minute Wait Is Not Required

Change condition (2) to read:

2. Track occupancy indicator indicates track is clear at locations specified in timetable special instructions.

Rule : 9.23.1 Guidelines While Block System Is Suspended
Change Rule To Read :
When a block system or sections of it are suspended, the following guidelines govern:

A Track Bulletin will specify, when applicable:

- The affected tracks and milepost limits of the suspension.
- The location(s) of flagmen who may authorize trains to enter or to proceed at intermediate locations within the suspended limits, specifying track(s) when necessary.
- The position of dual control switches at the end of multiple main tracks.
- Dual control switches that have been locked in hand operation for main track movement.
- Actions to be taken where automatic crossing warning devices are affected.
- When track warrants may be used to authorize movement.

Crew members must:

- Follow rules that apply to non-signaled territory and not exceed 59 MPH for passenger trains or 49 MPH for other trains.
- Disregard extinguished or illuminated block and interlocking signals, unless specified by track bulletin, except when those signals:
    - Govern movements over railroad crossings at grade.
    - Are connected with trackside warning detectors.
- Approach the beginning and end of the suspended limits prepared to stop. When suspension ends at a block signal identified as in service, trains must approach that signal prepared to stop until its aspect can be clearly seen.
- If suspension begins at an in service control point, signal indication will only authorize movement through the control point, not beyond it.
- If suspension does not end at a signal identified as in service, trains leaving the limits and moving into block system territory must move at restricted speed to the first signal in service beyond the limits.

Movements over Railroad Crossings at Grade and Drawbridges:

- Signals that govern movement over railroad crossings at grade and drawbridges must be regarded as displaying a Stop indication, regardless of the aspect displayed, unless the track bulletin specifies that the signals are in service or flagman at that location authorizes movement.
- Crew members must not rely on time release or key controller operation as adequate protection to move over the crossing, unless instructed that they are in service.

Dual Control Switches:

Unless notification has been received from the train dispatcher that dual control switches are:

- Locked in hand operation and are lined for intended movement.

  or

- Atended by a flagman;

Trains must stop and crew member must:

- Hand operate and lock dual control switches for main track movement.
- Leave switches locked in hand operation.
- Notify the train dispatcher that switches have been locked in hand operation and lined for main track movement.

Remote control switches not equipped for hand operation will be spiked or clamped and all concerned notified.

Spring Switches:

Spring switches removed from service must be spiked and those concerned notified. If spring switches are left in service, trains making facing point movements must be prepared to stop and test the switch, unless it is known that the switch is properly lined for the diverging route.

Block System Returned to Normal:

Train Dispatcher must notify crew members within the affected territory before permitting other trains to enter the limits when the block signal system will be returned to normal operation.

10.3 - Track and Time
A. Passing Signal Displaying Stop or Stop and Proceed Indication
Change Part 1 to read:

1. After stopping at a signal displaying a Stop indication, authority must be granted to enter the limits at either end. Authority from the control operator is not required after stopping within the limits or when entering the limits at any other location. Train must move at restricted speed.

Application of the second paragraph:
When the track and time includes "Switch Yes," the limits include that switch and the track between the absolute signals governing movement over the switch.

Application of the boxed sentence:
Track and time limits are sometimes issued across an interlocking. Track and time provides authority to be on the main track in CTC on both sides of the interlocking; however, it does not provide authority to occupy the interlocking limits. Interlocking rules apply.

Rule : 10.3.4 Track and Time Acknowledgment
Change second paragraph to read:

The employee will repeat the preprinted information and information transmitted by the train dispatcher including what has been entered in the summary, "This authority has (total number) boxes marked: (individual box numbers)."

14.0 - RULES APPLICABLE ONLY WITHIN TRACK WARRANT CONTROL (TWC) LIMITS
Change form to read::

TRACK AUTHORITY FORM – TE&Y

FORM 20705

(circle one)

Track Warrant Track & Time Track Permit

Number: _____ Date: _____

To: _____ At: _____

1. ☐ Track warrant _____ is void
2. ☐ Not in effect until after the arrival of _____, _____, _____ at _____
3. ☐ Proceed from _____ to _____ on _____ track _____ Subdivision
4. ☐ Hold Main Track at last named point
5. ☐ Clear Main Track at last named point
6. ☐ Do not foul limits ahead of _____, _____, _____
7. ☐ Work between _____ and _____ on _____ track _____ Subdivision
8. ☐ Authority granted between CP _____ on _____ (track) Switch Yes / No
   and CP _____ on _____ (track) Switch Yes / No
   Joint _____ Blocked until _____ Extended to _____
9. ☐ Limits jointly occupied between _____ and _____
   (NOTE: Trains must move at restricted speed within joint authority limits)
10. ☐ Joint with _____ between _____ and _____
    Joint with _____ between _____ and _____
    Joint with _____ between _____ and _____
11. ☐

From	To	Speed	Track	Flags At

12. ☐ Comply with Procedure _____ at/between MP _____ and MP _____
    Comply with Procedure _____ at/between MP _____ and MP _____
    The ___ switch at _____ is lined for siding
    The ___ switch at _____ is lined for siding
    Leave the ___ switch at _____ lined for siding
    Leave the ___ switch at _____ lined for siding
    _____
    _____
    _____

_____ Box(es) marked: _____, _____, _____, _____, _____, _____, _____, _____, _____, _____

OK at _____ Dispatcher _____ Relayed to _____ Copied by _____

Clear of _____ at _____ Disp _____ by _____

Clear of _____ at _____ Disp _____ by _____

Clear of _____ at _____ Disp _____ by _____

Limits reported clear at _____ by _____

Rule : 14.3 Operating with Track Warrants
Change diagram "A" as follows:

Change that part reading:
Authority Boxes 2 and 8
To read:
Authority Boxes 3 and 4

Change that part reading:
Authority Box 4 between Anna and West Switch Bess
To read:
Authority Box 7 between Anna and West Switch Bess

14.3.1: Leaving the Main Track

Add second paragraph reading:
Unless otherwise authorized by the train dispatcher, trains and engines occupying sidings not listed on track warrant must not exceed 10 MPH in the siding.

14.4 - Occupying Same Track Warrant Limits
Change parts 4, 5, and add part 6:

4. Trains are authorized to proceed through the limits of another train authorized to "WORK BETWEEN" two specific points, and track warrants instruct all trains to move at restricted speed within the overlapping limits. When station name(s) designate the overlapping limits, refer to Rule 14.2 (Designated Limits) for limits where trains are required to move at restricted speed.

5. Radio Blocking is authorized as outlined by Rule 14.4.1 (Radio Blocking).
or

6. Track Warrant contains conditional authority instruction "NOT IN EFFECT UNTIL AFTER THE ARRIVAL OF".

Rule : 14.6 Movement Against the Current of Traffic
Application:

This rule does not apply on UPRR unless designated in the timetable.

14.7 - Reporting Clear of Limits
Change rule to read:

Before reporting clear of limits, or having passed a specific location, or utilizing the "Release This Authority" function on the on-board locomotive system, confirm with the dispatcher that the conductor and engineer have discussed their location and are in agreement with limits or warrant being released. Communication must include the track warrant number when releasing track warrants.

A train without a crew member on the rear and operating in non-signaled or double track territory may report clear of the limits, report having passed a specific location, or release the track between two specific locations only when it is known the train is complete. This must be determined by one of the following ways:

1. The rear of the train has a rear-end telemetry device, and air pressure on the head-end device indicates brake pipe continuity.
2. An employee verifies the marker is on the rear of the train.
3. An employee can observe the rear car of the train on which the marker is placed.
4. The train is stopped, and an inspection verifies that the marker is on the rear car of the train.
5. A trackside warning detector transmits an axle count for the train, and the axle count duplicates the axle count transmitted by the previous trackside warning detector.

In non-signaled territory comply with the requirements outlined in Rule 8.3 (Main Track Switches) and advise the train dispatcher:

- All main track switches operated have been restored and locked in normal position.
- Crew members have completed the job briefing.
- Report form is properly initialed.

When a hand-operated switch is used to clear the main track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

Application
Crew members are responsible to ascertain and agree on the exact location entire train has passed before reporting past a specific location or clearing track warrant limits.

'Roll-up'
When the train dispatcher requests a train's location to shorten up or 'Roll-up' an active track warrant the following communication will apply:

Train dispatcher: 'I need to roll-up track warrant (number). What will protect the rear of your train, over?'

When reporting past a specific location:

- Crew members will job brief and agree on train's location and location entire train is past.
- When using a milepost location, communication with the train dispatcher will include a whole milepost number (not tenths) the entire train is past.
- When using railroad identifiable points that include a direction, such as a siding switch, state and spell direction i.e. "North (N O R T H) siding switch at Dora".

Crew member: 'Milepost (number) covers the rear of our train, dispatcher. (Position and Name) ready to copy, over

After initial communication the train dispatcher will initiate 'Roll-up':

Sample radio transmissions:

Train Dispatcher: 'Track Warrant #46-55, UP 2467 is clear of MP 362, over.'

Crew member: 'Track Warrant #46-55, UP 2467 is clear of MP 362, over.'

Train Dispatcher: 'That is correct at 0817, dispatcher BAF, copied by Smith, over.'

Crew member: 'Correct at 0817, dispatcher BAF, Smith, over.'

Train Dispatcher: 'That's correct, Dispatcher Out.'

14.9 - Copying Track Warrants
Change rule to read:
Employee will copy Track Warrants using the format outlined in the operating rules. All crew members must each have a paper copy of the track warrant issued to the train, and each crew member must read and understand it. The copy must show the date.

Track Warrants may be transmitted by the dispatcher and received by the PTC on-board system while in the 'DISENGAGED' state.

Before acting upon a transmitted authority, the crew must verify the authority number, designated limits, and any conditions of authority with the train dispatcher.

The following must occur when transmitted verbally:

A. Transmitting Track Warrants

1. The train dispatcher will transmit the track warrant. The train dispatcher will not transmit the summary.
2. An employee will enter all of the information transmitted by the train dispatcher. The employee will then check the information copied to ensure all items are correct and enter in the summary the total number of boxes marked and individual box numbers.
3. The employee will repeat the preprinted and information transmitted by the train dispatcher including what has been entered in the summary, "This track warrant has (total number) boxes marked: (individual box numbers)."
4. The train dispatcher will check the repeat and summary, and if all information including the summary is correct; will say "OK" and give the time and his/her initials.

The employee will enter the OK time and the train dispatcher's initials on the track warrant and repeat them to the train dispatcher.

B. In Effect

1 The track warrant is not in effect until the "OK" time is shown on it.

.

- When received by the PTC on-board system, the "OK" time will be given when the authority is issued.

2

- Authorities that restrict a previously issued authority must not be transmitted until the engineer has confirmed the change to authority can be complied with.

Employees may relay track warrants.

Rule : 14.11 Changing Track Warrants
Add Note:
Note: This does not prohibit additions or changes authorized by the rules (e.g. Rule 14.7).

14.13 - Mechanical Transmission of Track Warrants
Add the following paragraph:
Crew members must verify the designated limits and any conditions of track warrants that convey authority with the train dispatcher before initiating movement on main track.

15.0 - TRACK BULLETIN RULES - TRACK CONDITION SUMMARY

Form B's will have asterisks before and after the bulletin. When flags are displayed in less than the prescribed distance, the milepost and direction will be shown. If flags are not displayed "NOT" will be shown.

Example: Track Condition Summary

NO: (Track Warrant) TO: (Train ID)

Subdivision (000)

42683(2) 42554(3) 42276(2) 42034

LINE NO.	LIMITS FROM MP	LIMITS TO MP	MPH	TRACK(S) AFFECTED	FLAG	FLAG AT MP	FOR DIR	FROM DATE	FROM TIME	UNTIL DATE	UNTIL TIME
	FORM A NO. 42683										
1.	43.9	44	40	MT 2		43	WWD	04/07/14	1220		
2.	46.6	47.1	40	MT 2				04/11/14	1318		
	FORM A NO. 42554										
1.	51	51.2	40	MT 2				04/10/14	1102		
2.	55.5	55.6	40	MT 2				04/10/14	0100		

LINE NO.	LIMITS FROM MP	LIMITS TO MP	TIME FROM	TIME UNTIL	TRACK(S) AFFECTED	FLAG AT MP	FOR DIR	GANG NO /FOREMAN
	*****FORM B NO. 42276*****							
ON 04/14/14 RULE 15.2 APPLIES WITHIN THE FOLLOWING LIMITS:								
1.	113	118	0700	1900	MT 1	112	WWD	4763 GUTZ
2.	113	118	0700	1900	MT 2	112	WWD	4763 GUTZ

LINE NO.	LIMITS FROM MP	LIMITS TO MP	MPH	TRACK(S) AFFECTED	FLAG	FLAG AT MP	FOR DIR	FROM DATE	FROM TIME	UNTIL DATE	UNTIL TIME
	FORM A NO. 42554										
3.	114.4	116.3	60	MT 2				04/10/14	1118		

FORM C NO. 42034 Date 04/03/14

1. SIDING AT WILD OUT OF SERVICE SWITCHES ARE SPIKED AND TAGGED

PAGE 1 OF 1

For Train Movements in the Opposite Direction.

Example: Track Condition Summary

```
NO: (Track Warrant)     TO: (Train ID)

Subdivision (000)
42276(2)  42554(3)  42683(2)  42034
-------------------------------------------------------------------------------
LINE      LIMITS        TIME     TRACK(S)   FLAG   FOR       GANG
 NO. FROM MP TO MP   FROM UNTIL  AFFECTED   AT MP  DIR     NO /FOREMAN
---- ------- ------- ---- ----- ---------- ------- ---    ---------------

     *****FORM B NO.  42276*****
ON 04/14/14 RULE 15.2 APPLIES WITHIN THE FOLLOWING LIMITS:
1.   118     113    0700 1900    MT 1        112    WWD   4763  GUTZ
-------------------------------------------------------------------------------
2.   118     113    0700 1900    MT 2        112    WWD    4763  GUTZ
-------------------------------------------------------------------------------
LINE      LIMITS         TRACK(S)        FLAG    FOR       FROM       UNTIL
NO. FROM MP  TO MP  MPH  AFFECTED  FLAG  AT MP   DIR   DATE  TIME  DATE TIME
--- ------   ------ --- ---------- ---- -------  ---   ----  ----  ---- ----
    FORM A NO.  42554
3.   116.3   114.4    60    MT  2                      04/10/14 1118
-------------------------------------------------------------------------------
2.    55.6    55.5    40    MT  2                      04/10/14 0100
-------------------------------------------------------------------------------
1.    51.2    51      40    MT  2                      04/10/14 1102
-------------------------------------------------------------------------------
    FORM A NO. 42683
2.    47.1   46.6     40     MT 2                      04/11/14 1318
-------------------------------------------------------------------------------
1.    44     43.9     40     MT 2          43    WWD   04/07/14 1220
-------------------------------------------------------------------------------

   FORM C NO. 42034                                DATE 04/03/14
1. SIDING AT WILD OUT OF SERVICE SWITCHES ARE SPIKED AND TAGGED

                                PAGE 1 OF 1
```

Below the last line of data there will be a blank line then the page number. Nothing should be printed below the page number.

OK times and Train Dispatchers initials are not shown.

Form A and Form B Track Bulletins

On the subdivision summary page, the track bulletin number for Form A and Form B bulletins will have, in parenthesis, the number of line items for that track bulletin. Because of the sorting by milepost, any particular Form A or Form B bulletin may be split by another Form A or Form B bulletin in the body of the Track Condition Summary.

Form C Track Bulletins

Form C track bulletins for a particular subdivision will be listed after the Form A and Form B bulletins for that subdivision with two exceptions.

- Listed first on the Track Condition Summary will be Form C bulletins that apply to the entire system. The subdivision heading will be "System Bulletin All Subdivisions".
- Form C bulletins issued on multiple subdivisions will be listed next. These will only be listed once; the subdivision heading will show all the subdivisions that the bulletin has been issued on.

15.1 - Track Bulletins

Change fifth paragraph under Receipt and Comparison of Track Bulletins; add note as follows:

At locations where track warrants/track condition summary (TCS) listing track bulletins are received by printer or fax, crew members must verify that route description, if printed, covers the intended route of the train and that the track warrant/(TCS) includes the correct train symbol of the train. If it does not, contact the train dispatcher and determine if the track warrant/(TCS) is valid.

If the train ID (lead locomotive) differs from what is shown on the track warrant/(TCS), and the PTC System is NOT in the ACTIVE or DISENGAGED state (including operating in non-PTC territory or operating per Rule 18.13), a crew member must contact the train dispatcher to change the train ID on the track warrant/(TCS).

Also, crew members must check the date and "OK" time on the track warrant/(TCS) and if the track warrant/(TCS) is over 4 hours old, contact the train dispatcher and determine if additional track bulletins are needed.

Note: After receiving track warrant, if a crew is assigned to operate a train with a train symbol different than the one listed on the track warrant, the above applies.

15.1.1 - Changing Address of Track Warrants, Track Bulletins, or Track Condition Summary

Change title and rule to read:

15.1.1 - Changing Address of Track Warrants, Track Bulletins, or Track Condition Summary

If the address must be changed on a track warrant / track condition summary used to deliver track bulletins only or a track bulletin that does not grant authority according to Rule 15.3 (Authorizing Movement Against the Current of Traffic), the train dispatcher may verbally change the track warrant / track condition summary number, train symbol, engine identification, direction, or date. However, crews performing yard or hostling service, using the main track at a yard or terminal, may change the engine number or train symbol on track warrants or track bulletins received from the train dispatcher without communicating with the train dispatcher**.**

Rule : 15.2 Protection by Track Bulletin Form B

Change third paragraph to read:

A crew member must attempt to contact the employee in charge sufficiently in advance to avoid delay, giving the train's location and track being used. When possible, attempt must be made at least 2 miles in advance of the limits. The crew member must inform the employee in charge if there are any excessive dimension loads in the train. The employee in charge will use the following format to establish communication with the train:

Foreman (name and/or gang number) using Track Bulletin No.____ (specifying line number when necessary) between MP____ and MP____ (specifying subdivision when necessary).

Change firest bullet in part A. Instructions to read:

- (Train ID) may pass the red flag at MP____ and proceed at (one of the following), (specifying track when necessary):

Application:

When two Form B track bulletins meet at adjoining subdivisions resulting in a continuous Form B restriction with the same employee in charge and the same time limits, the employee in charge may grant permission and give instructions to the train concerning both Form B's at the same time. The communication will begin using the following format:

Foreman (name) using 2 track bulletins. Track Bulletin No.____ Line No. _____ Subdivision _____ and Track Bulletin No. ___ Line No. ____ Subdivision _____ between MP _____ and MP _____ (outer mileposts).

15.2.1 - Reserved
Add:
15.2.1 - Reserved

Rule : 15.2.2 Protection of Non-Railroad Contractors
Add new rule :
When authorized non-railroad employees or non-railroad contractors are working near a main track or controlled siding, protection will be provided as outlined below.

- When working within 10 feet of the track, protection will be provided by use of a track bulletin, track and time, track permit, track warrant, or other means of protection. Except in California or when work will be performed foul of the track, a Form C track bulletin may be used:

  "EFFECTIVE ON (DATE) FROM (TIME) UNTIL (TIME) BETWEEN MP___ AND MP___ PROCEED PREPARED TO STOP SHORT OF MENAND EQUIPMENT NOT TO EXCEED 20 MPH UNLESS INSTRUCTED OTHERWISE BY FOREMAN (NAME).'

  Train receiving track bulletin must proceed within the limits prepared to stop short of men and equipment and not exceed 20 MPH until leading wheels have cleared the limits unless instructed otherwise by the employee in charge. Whistle signal 5.8.2 (8) will be sounded.

- When working between 10 and 25 feet of the track, trains will be notified of their presence by issuance of a Form C track bulletin that reads:

  "CONTRACTORS ARE WORKING AT LEAST 10 FEET FROM THE TRACK AT THE FOLLOWING LOCATION(S): (IDENTIFIED AT MP___ OR BETWEEN MP___ and MP___)."

  A watchman must ensure workers and equipment remain at least 10 feet from the track.

  Railroad employees who observe work being performed within the boundaries of railroad right-of-way without notification as outlined above should report this information to the train dispatcher for further action.

15.3 - Authorizing Movement Against the Current of Traffic
Change Rule To Read:

Where Rule 9.14 (Movement with the Current of Traffic) is in effect, a track bulletin may authorize movement against the current of traffic as follows:

1. "(Train) will use _____ track against the current of traffic (point) to (point)."
   The train must use only the track specified between these points. Opposing trains must not leave the last point until the train arrives. The train dispatcher must not authorize a following train to move against the current of traffic until the previous train has cleared the last point unless movement is made within PTC territory and the following train is utilizing an operative PTC system.

   The example may be modified as follows:

   "After (opposing train) arrives at (point) (train) will use _____ track against the current of traffic (point) to (point)."

   The train that will move against the current of traffic must not leave the first point until the opposing train arrives.

   Trains directly affected in both directions must receive this track bulletin and must not:

   - Clear the main track.
   - Allow a following train to pass.
     OR
   - Pass a preceding train, unless authorized by the train dispatcher.

2. "(Time) until (time) (date) all trains use ____ track between (point) and (point). All trains must stop before fouling _____ track between these points unless directed to proceed by employee in charge of switches or by train dispatcher."

This bulletin may also contain information on public crossing protection, switches spiked, intermediate flagman, and so forth.

Following Movement. A train may not follow another train against the current of traffic until the previous train has cleared the limits, passed a designated location, or passed a flagman located at the next intermediate point unless movement is made within PTC territory and the following train is utilizing an operative PTC system. Flag protection is not required against following trains.

Flagmen Not Provided. When flagmen are not provided, the example will be modified by adding:

- "Normal position of switches at (location) will be as last used. Trains and engines must approach these switches prepared to stop and line switches for intended route"

Trains not utilizing an operative PTC system must contact the train dispatcher to receive an absolute block prior to operating against the current of traffic.

Within PTC territory, trains on which the PTC system becomes inoperative while operating against the current of traffic must immediately reduce to restricted speed and contact the train dispatcher to receive an absolute block.

Flagman Provided. When flagmen are provided, the example will be modified by adding:

- "Intermediate flagman located at (point). Trains moving against the current of traffic must stop short of flagman unless directed to proceed."

Extending Time. Time may be extended by issuing another track bulletin as follows:

- "Track bulletin No. __ is extended until (time)."

This bulletin will be used when one or more tracks will be removed from service, and all trains in both directions must use the remaining track as directed by the train dispatcher or an employee in charge of switches at each end of the designated limits.

The train dispatcher will authorize movement between the designated points and issue the track bulletin and necessary instructions to the employee in charge of switches. This employee may verbally direct movement or use hand signals. Also, the train dispatcher may use a controlled signal indication to authorize movement.

All affected trains must receive a copy of the track bulletin.

Rule : 15.4 Protection when Tracks Removed from Service
As contained in third paragraph;
Delete sentence reading:
Movements within the out of service limits may pass Stop and Proceed indications without stopping.

15.12 - Relief of Crew Member(s) During Trip
Change title to read:
15.12 - Relief of Crew Member(s) During Trip
Comparison of Information
Change to read:
Comparison of Information
The relieving crew member(s) must compare:

- Track warrants, track bulletins, instructions, and pertinent information with each other.
- The track warrant for bulletins/Track Conditions Summary number with the train dispatcher. The train dispatcher will verify that the warrant includes all required track bulletins and will provide any additional restrictions required for the route.

15.12.1 - Relief of Crew at Crew Change Location
Add new rule:
When making a crew change, relieving crew members must determine from the inbound crew if there are any unforeseen restrictions issued that have not been fulfilled/traversed or tasks in progress (e.g. air test). When not relieved by another crew, the inbound crew must leave this information in writing for the relieving crew and notify the dispatcher of tasks not completed. In addition, at locations where a yardmaster is on duty, the yardmaster must also be notified.

15.13 - Voiding Track Bulletins

B. Issue Track Bulletin or a Track Warrant to Void a Track Bulletin

Change part reading:

Issue a track bulletin or use the line designated "OTHER SPECIFIC INSTRUCTIONS" on a track warrant using one of the following examples:

To read:

Issue a track bulletin or use the lines designated on Box 12 on a track warrant using one of the following examples:
SSI has been deleted.

18.2 - Taking Charge of PTC Equipped Trains

Change rule to read:

When taking charge of a train, the engineer must confirm the following:

1. The PTC circuit breaker and cut out switches are in the appropriate position.
2. The PTC system on the controlling locomotive is initialized, with UP selected as the operating railroad, by the engineer who will operate the train and in the DISENGAGED or ACTIVE state.
3. Departure test is performed at the train's initial terminal, when the controlling locomotive is changed, or when prompted by the PTC system.

Before departing the train's initial terminal or a Designated PTC Repair Location:

- PTC must be operative, initialized, and in the ACTIVE or DISENGAGED state on the lead controlling locomotive.
- The engineer must verify PTC is shown as operative on train documentation for any locomotive that will be utilized as the controlling locomotive during the train's scheduled trip (e.g., change operating ends of the consist or train enroute) and verify, through a successful initialization process, that the ACTIVE or DISENGAGED state is achieved on that locomotive.

When the controlling locomotive's PTC system becomes inoperative enroute (including initialization failure at other than the train's initial terminal or Designated PTC Repair Location), be governed by Rule 18.12 (Movements with Inoperative PTC System).

Application:
Initialization failure with railroads other than UPRR is not considered an initialization failure.

18.6 - Consist Data

Add:

The PTC consist data must be updated after any work events.

18.7 - Comparison of PTC Display Information

Change third paragraph to read:

When the PTC display does not conform with a wayside signal indication, maximum authorized speed, mandatory directive, timetable, or special instruction, be governed by the most restrictive.

18.9 - Use of Restricted Mode

Change rule to read:

Restricted Mode must be turned on before performing work events such as:

- Switching.
- Making pickups and/or setouts, etc.
- During work train operations (loading, unloading, etc.) while under the supervision of the MW employee in charge.

Restricted Mode must be turned off after work event has been completed and when moving between locations.

18.10 - Working with Helper Units

Change title and rule to read:

A. Helpers added to head end of the train:

- Perform soft cut out of the PTC system on lead engine of the train after helper unit(s) are added.
- Initialize PTC on the lead helper locomotive prior to movement.
- PTC must be cut in after helpers are removed and prior to movement.

B. No changes are required to the PTC system on the lead engine when helpers are added to the rear end of the train.

18.11 - Electronic Delivery of Mandatory Directives

Change rule to read:

Mandatory directives may be transmitted by the dispatcher to the PTC on-board system.

Employee will copy mandatory directives that are within the train's scheduled route using the format outlined in the operating rules. The conductor and the engineer must each have a copy of mandatory directives issued to their train, and each crew member must read and understand them.

Before acting upon a transmitted authority, the crew must verify the authority number, designated limits, and any conditions of authority with the train dispatcher. The "OK" time will be given when the authority is issued.

Authorities that restrict a previously issued authority must not be transmitted until the train crew has confirmed the change to authority can be complied with.

When restrictions are transmitted, the crew must verify the restriction is within the train's scheduled route. Prior to traversing the limits of the restriction, the crew must verify the restriction with the dispatcher. Upon correct verification, the dispatcher will give the OK time and initials.

When a bulletin void is transmitted, the crew must review, copy, and acknowledge the bulletin void on the PTC screen without undue delay.

PTC will remove the bulletin from the bulletin list in PTC upon acknowledgment of the void, however the track bulletin or the part of the track bulletin indicated remains in effect for the train until it has been verbally voided by the train dispatcher.

Prior to traversing the limits, the crew must verify the bulletin, or the part of the track bulletin indicated has been voided with the dispatcher. Upon correct verification, the dispatcher will give the OK time and initials.

When restriction/bulletin void is not within the train's scheduled route or the train has passed the limits of the restriction /bulletin void and will not return (i.e. changing authorized direction), verbal confirmation with the dispatcher is not required.

18.12 - Movements with Inoperative PTC System

Add new rule:

18.12 - Movements with Inoperative PTC System

Immediately notify the train dispatcher when the controlling locomotive's PTC system fails to initialize or becomes inoperative enroute, except when operating where PTC is suspended by Mandatory Directive.

When the PTC System on the controlling locomotive becomes inoperative while enroute, or when movement of a locomotive with inoperative PTC is otherwise authorized by the Train Dispatcher, movement may continue to the next Designated PTC Repair Location.

Unless further restricted, the following maximum speeds will govern:

In non-signaled territory (including operating within signal suspension limits), or when operating against the current of traffic in Rule 9.14 (Movement with the Current of Traffic) territory:	
Trains transporting one or more loaded cars containing TIH/PIH	30 MPH
All other trains	40 MPH
In signaled territory:	
Freight trains transporting one or more loaded cars containing TIH/PIH	40 MPH
Freight trains not transporting loaded cars containing TIH/PIH	49 MPH
Passenger trains	59 MPH

18.13 - Movements Without PTC

Add new rule:

Trains engaged in freight switching, transfer train service (including yard, local, and industrial), hostling, work train service, or the assembling or disassembling of trains, may operate in PTC territory without the controlling locomotive being PTC equipped or initialized, provided:

1. The dispatcher authorizes the movement to be made without operational PTC.
2. The movement originates in a yard, or within 20 miles of a yard with the yard as the final destination point.
3. The movement does not travel in excess of 20 miles from the point of entry onto PTC-equipped main track. If main track movement in PTC territory will be made on more than one railroad, combined movement on all railroads must not exceed 20 miles.
4. The movement must not exceed Restricted Speed unless all three of the following conditions are met:
    - No other train or locomotive is operating without operational PTC within the same authorized limits.*

- No Form B Track Bulletin is in effect within the same authorized limits.*
- A Class I, II, or Transfer Train brake test has been performed in which case the movement must not exceed 30 MPH.

* Application: Same authorized limits are a segment of track:

- Between consecutive controlled absolute signals.
- Listed on a mandatory directive.

GENERAL CODE OF OPERATING RULES GLOSSARY

Abbreviations
Add:
OCT Other Controlled Track
PIH Poisonous Inhalation Hazard
SI Special Instructions
SSI System Special Instructions
TIH Toxic Inhalation Hazard

Add:
Adjacent Track
Parallel tracks that are not separated by a single lane roadway or similar distance are considered adjacent tracks.
Note: This definition only applies when determining if Track Breach Protection is required.

Add:
Breach
To enter an area between two adjacent tracks.

Add:
Cab Red Zone
A "Cab Red Zone" (CRZ) exists during critical times or when multiple tasks are occurring. During a Cab Red Zone, an environment must be created in the locomotive control compartment that focuses exclusively on controlling the train, verbally communicating restrictions, and proper application of the rules.

Change Clearance Point to read:
Clearance Point
The location closest to a switch where it is safe for equipment, and a person riding the side of equipment unless prohibited, to pass equipment on an adjacent track. Clearance Point location may be identified by a clearance cone and/or painting of rails and ties.

Crossover
Change to read:
A combination of two switches that connect two adjacent tracks, normally used for crossover movements. Crossover speed is restricted to the lowest connected turnout speed.

Add:
Electronic Device

An electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or other written material; play a game; navigate the Internet; navigate the physical world; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety related task.

Add:
Gravity Switch
A switching process using gravity to reposition cars on the opposite end of a locomotive, without using locomotive to start movement of cars. See Rule 7.7.1.

Add:
Hard Cut In (PTC)
A state of the PTC system when PTC cut out switches are placed in the cut in position.

Add:
Hard Cut Out (PTC)
A state of the PTC system when PTC cut out switches are placed in the cut out position.

Add:
Humping Cars
Allowing cars to roll into remotely controlled sorting tracks under their own momentum during cresting operations at a hump yard. After uncoupling, the speed of the movement is controlled through the use of retarders.

Add:
Jump Frog
A main track frog designed for use with low traffic turnouts. The main track side is made up of an unbroken rail and the turnout side carries the wheel over the main track rail by supporting the flange of the wheel.

Add:
Kicking Cars
To shove a car a short distance and uncouple it in motion.

Add:
Non-enforcement State (PTC)
A state when the PTC system is cut out, failed, degraded, disengaged, or experiencing other unenforceable conditions.

Add:
Other Controlled Track (OCT)
A segment of track (not main track or siding) between Control Points that is governed by GCOR Chapter 10 (CTC) rules. Locations of OCT are listed in the timetable.

Add:
Radio Speed Restriction
A speed restriction received from the train dispatcher while enroute.

Add:
Railroad Operating Employee
An individual who is engaged in or connected with the movement of a train including a hostler, a train employee providing commuter or inter-city rail passenger transportation, or is subject to hours of service governing trains service employees.

Add:
Soft Cut In (PTC)
A state of the PTC system resulting from selection of the cut in key on the PTC display.

Add:
Soft Cut Out (PTC)
A state of the PTC system resulting from selection of the cut out key on the PTC display.

Add:
Spur Track
A track connected to another track at only one end, also referred to as a stub track.

Add:
Stowed
When items such as electronic devices, literature, etc. are required to be stowed, the items are not properly stowed until they are placed out of sight in the employee's grip, luggage, back pack, etc. Personal electronic devices must be turned off and are not considered stowed when placed in pockets or device holders.

Add:
Switch Providing Direct Access
A switch that if used by rolling equipment could permit the rolling equipment to enter the track and couple to equipment.

Add:
Train Dispatcher
Employee assigned to operate a CTC or interlocking machine, transmit or deliver orders affecting train movements, and supervise train movements and any employees connected with that movement, including control operators.

Add:
Train ID
Trains will be identified by initials and engine number, adding the direction when required. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. The identifying number will be the number of the lead unit, unless changing direction during a trip or tour of duty when that unit is no longer the lead unit.

Add:
Yard Access Crossing
A grade crossing that is located within the physical confines of a railroad yard and is either:

- Open to unrestricted public access;
  or
- Open to persons other than railroad employees going about their normal duties, e.g., business guests or family members.

General Orders

Rule 15.13.1: Delete rule.

^Top

Item 10-B: Electronic Conveyance (EC) and Positive Train Control (PTC)

Electronic Conveyance
Electronic Conveyance territory is specified in the timetable under SI-01. When taking charge of a train in EC territory, and when the lead locomotive is PTC equipped and operative, PTC must be initialized. In EC territory, PTC will be in a non-enforcement state. Authorities and mandatory directives may be delivered through the on-board PTC system (when initialized). The train dispatcher will initiate communication when a directive has been delivered to the onboard system. Mandatory directives must be copied as outlined in the operating rules.

Positive Train Control
PTC limits are specified in the timetable under SI-01. Within PTC limits, the PTC system must be utilized unless authorized to be cut out by the train dispatcher, bulletin, or rule. The PTC system must not be utilized when less than 95% of train brakes are operative.

1. PTC Qualification
Union Pacific Engineers must pass all requirements of Union Pacific's training program. Foreign line Engineers must pass all requirements of their employing railroad's training program.

2. Reporting Requirements While Operating on UPRR
Promptly contact the Union Pacific PTC Help Desk and be governed by instructions received when any PTC initialization or enroute failures occur.

- **Note:** If PTC breaker or switches are in OFF/Cut Out position on a locomotive that is not listed as "PTC Defective" on the Train List, restore the breaker/switches to the ON/Cut In position and attempt to initialize PTC. If PTC initialization is unsuccessful, contact help desk.

To contact the Union Pacific PTC Help Desk:

A For trains on line of road, i.e. occupying a main track or siding, contact the train dispatcher.

B For trains clear of the main track or siding at an originating or intermediate terminal, turn the radio to the correct dispatcher radio channel for the area you are in as identified in timetable subdivision instructions under Radio Display (SI-RD) and dial 987 on the Radio Keypad.

Prior to tie-up, the assigned engineer (UP Employees Only) must submit a PTC feedback to report any initialization, braking enforcements(s), or enroute failures. To access the feedback comments section: From the MyUP website, use the (=ON) function, and under the "Engine Inspection" tab, in the "PTC Feedback" column select "Edit" to report any PTC events and add comments.

3. Defective PTC
PTC is considered defective when any one of the following occurs:

A System fails to transition to ACTIVE state prior to entering PTC territory.

- **B** System fails to transition to ACTIVE state after having been initialized in PTC territory and the engine has moved one train length.

C While in PTC territory, system transitions from ACTIVE state to Non-enforcement State for more than 30 seconds or one train length (whichever is greater) except when due to Engineer Logoff or Soft Cut Out.

D One or more display device(s) is not intelligible.

- **E** System fails to sound an audible indication in conjunction with a visual warning.
- **F** System displays track conditions that do not conform at two successive block or interlocking signal locations.
- **G** System displays track conditions that do not conform to an authority, track bulletin, or timetable speed limit.
- **H** System displays a yellow HORN flag and/or fails to operate the horn properly.

When it is determined the PTC system is defective, the engineer must immediately reduce train speed as required by Rule 18.12, consistent with good train handling, and contact the PTC Help Desk to recover the PTC system.

If the PTC system returns to the ACTIVE state and all equipped PTC screens are displaying the proper information, notify the Train Dispatcher and proceed at maximum authorized speed.

4. Inoperative PTC

If the PTC Help Desk is not able to recover the PTC system, the Help Desk will declare PTC inoperative. Notify Train Dispatcher and proceed as required by Rule 18.12.

Application:

The PTC help desk will solely make the determination that PTC has become inoperative.

5. Designated PTC Repair Locations

On trains operated by UP engineers the PTC system must be in the DISENGAGED or ACTIVE state prior to departure or when operating through designated PTC repair locations. Engineers must not depart or operate through the following locations when PTC is defective.

Chicago Commuter Operations

- M19-A:
  All Metra locomotives and UPY711, UPY723, UPY728, and UPY729.
- California Avenue Coach Yard:
  All Metra cab cars and UPY711, UPY723, UPY728, and UPY729.

Does not apply to freight or commuter trains operating on the main track and not entering the yard at these locations, these trains do not operate through the repair facility.

Denver – North Yard

- Applies to trains originating in North Yard or operating on the Moffat Tunnel Subdivision between CP DS005 to CP DS003 (Utah Jct) on MT3 or North Yard siding.

Dolores, CA

Fort Worth – Davidson

- Applies to all trains operating to or from the Baird Subdivision, including all originating outbound trains (XFWXX).
- Does not apply to trains operating Northward or Southward between Choctaw or Duncan Subdivisions and the Fort Worth Subdivision, these trains do not operate through the repair facility. These trains would require a formal reroute to operate off schedule on to the Dallas Subdivision to enter the Davidson Yard repair facility. Furthermore, once the train has entered the repair facility and the failed unit is either repaired or replaced, the train would then be required to make an approximate three-mile shove back to the North-South line.

Houston – Settegast

- Applies to all originating outbound trains (XHOXX).
  Train operating from the Houston Subdivision to the Houston Subdivision and Houston East Belt through Settegast to Beaumont Subdivision will be required to replace PTC failures in route.

Little Rock

- Subdivision and Little Rock Subdivision.
- Does not apply to trains operating between the Van Buren Subdivision and Little Rock Subdivision, these trains do not operate through the repair facility.

Livonia

North Platte

- Between CP B276 on the Kearney Subdivision and CP W298 on the Sidney Subdivision.
- All trains originating at North Platte must have working PTC.
- All run through trains passing North Platte must have working PTC.

Portland – Albina

- Does not include trains operating via the Graham Line between the Brooklyn Subdivision and Portland Subdivision, these trains do not operate through the repair facility.

Proviso

- Applies to all freight trains originating at or passing Proviso while operating on the Geneva Subdivision.

Roseville

6. PTC Operations

A. CTC, Rule 9.14.2- Control Block System (CBS), Other Controlled Track (OCT), Manual Interlocking, or Control Point Locations

After receiving authority to enter the main track, enter a controlled siding, or pass a signal displaying Stop, the crew must confirm authority is displayed accurately in the Mandatory Directives, Authority Menu. If the issued authority is

not accurate, do not act upon the authority and promptly notify the train dispatcher.

B. Track Warrant Control

When receiving Track Warrant(s) for authority, comply with Rule 18.11 Electronic Delivery of Mandatory Directives.

When a Track Warrant for authority includes "Not in effect until after the arrival of", and it has been determined that engine(s) have arrived, the engineer must press the "Arrived" soft key corresponding to the lead engine of the train to be met and the "All Arrived" key in order to proceed.

C. Movement with the Current of Traffic – Rule 9.14

After receiving a Track Permit, the crew must compare the Track Permit with what PTC is displaying under the Mandatory Directives, Authority Menu. If the Track Permit does not match the information in the PTC Mandatory Directives, Authority Menu, promptly notify the train dispatcher and do not act upon the authority until the discrepancy is corrected.

PTC will allow movements against the current of traffic when a bulletin authorizing such moves is in effect. Engineer is responsible for operating train in compliance with all applicable operating rules when moving against the current of traffic. Promptly notify the dispatcher if PTC does not allow train movement against the current of traffic. when a bulletin authorizing movement is in effect.

D. Non-Controlled Absolute Stop Signal

1. **ABS (Rule 9.12.4)**
   When the PTC system shows a Stop target where a non-controlled Stop signal is located in ABS territory:
   - Stop train within 1500 feet of the signal displaying stop indication.
   - After stopping, the PTC screen will display "Press key when you are authorized to proceed past the signal" along with a "received" key.
   - Press received key after receiving permission to proceed past the signal.
   - PTC will remove the stop target and allow train to proceed.

2. **CTC (Rule 10.1)**
   When the PTC system shows a Stop target where a non-controlled Stop signal governs movement over a hand-operated switch that is not electrically locked, stop train within 1500 feet of the signal displaying Stop. After the main track switch has been lined for movement, press the "Verified" key. The PTC screen will display "Press Key To Indicate Whether Signal At <***> Has Cleared Or Not" along with a "Yes" and "No" key. Press "Yes" key if the signal displays a proceed indication; PTC will remove the stop target and allow train to proceed. Press "No" if the signal continues to display a stop indication; a 10 minute countdown will begin. After 10 minutes have elapsed, PTC will remove the stop target and allow train to proceed.

E. Automatic Interlocking

When the PTC system shows a Stop target at an automatic interlocking:

- Stop train within 1000 feet of the signal displaying Stop indication.
- After stopping, the PTC screen will display "Press key when you are authorized to proceed past the signal" along with a "received" Key.

- Press received key after complying with the instructions in the release box, special instructions, or other instructions that allow the train to proceed.
- PTC will remove the stop target and allow train to proceed.

F. System Cut In / Cut Out While Operating on UPRR

A Soft Cut Out or Soft Cut In of the PTC system may be performed when authorized by the Train Dispatcher, track bulletin or rule.

When authorized by the Train Dispatcher or Help Desk to perform a Hard Cut Out of the PTC System, the train must be stopped and the engineer must place all PTC Cut Out switches in the Cut Out position.

G. System Cut Out While Operating on a Foreign Railroad

Before occupying UPRR controlled track, the crew must notify UPRR dispatcher that PTC is Cut Out under authority of designated foreign railroad supervisor.

H. Switch Prompts

When switch prompts are displayed on the PTC onboard screen they must be acknowledged promptly and accurately. If prompts are not acknowledged properly, the system will transition to a disengaged state, requiring track selection to be made to transition the system back to the ACTIVE state.

7. Train Consist

The train must be STOPPED to modify any information on the consist screen of the PTC system including train type. See Rule 18.6 Consist Data.

Note: Pressing "Request New Consist" soft key after making any of the following changes will undo any consist updates made by the train crew.

Select Train Type as follows:

- Trains containing a 5% or greater number of multi-platform/unit/well intermodal or multi-platform autorack cars will select Intermodal.
- Train symbols beginning with P will select Passenger.
- All other trains, including light engines, will select Freight.

8. Operating at Restricted Speed

Train crews are responsible for complying with the requirements of Rule 6.27 Restricted Speed. When required to operate at Restricted Speed, and Restricted Mode is not engaged, PTC will:

- Provide overspeed warning at 19 MPH.
- Invoke over-speed enforcement braking at 21 MPH.
- Display switch prompts while on approach to hand operated switches. (Active state only.)
- Apply a penalty brake application if a signal overrun is predicted. (Active state only.)

Note: Restricted Mode is a PTC mode used when performing work events. PTC will only provide overspeed warning at 19 MPH and invoke braking enforcement at 21 MPH. It will not display conditions of track ahead, targets, and warning or

stopping distances.

9. TPDBA/HTUA SPEED RESTRICTIONS
The PTC onboard display may display a maximum speed different than that required by Tons Per Dynamic Brake Axle (TPDBA) and High Threat Urban Area (HTUA) speed restrictions. Train crews are responsible for complying with TPDBA and HTUA speed restrictions.

Rule Updated Date

February 5, 2025

General Order

Effective Date: February 5, 2025

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

30.9.1 - Train Information
Change last paragraph to read:
A written or electronic record of the information shall be maintained in the cab of the controlling locomotive.

If a consist is not available or if the consist does not include all of the required information, it may be provided by other means.

31.1 - Taking Charge of Locomotive Consist
Delete bullet reading:

- Verify that "Blue Card" is displayed under a transparent cover in the cab of each locomotive.
  Union Pacific locomotives have an entry at the bottom of the blue card which reads "Do Not Use After mm/dd/yy".
  Verify that the locomotive has not passed this date.

31.6.2 - Locomotive Consist Limits
Change to read:

31.6.2 Reference Rule 31.8.3	**Locomotive Consist Limits** Freight trains are limited to ten locomotives on the lead consist that are: • Working. • Isolated. • Dead-in-consist. or • Dead-in-train immediately behind the locomotive consist.

	Limit light locomotive power transfers to a maximum of 25 locomotives. Reference Rule 33.4.1 for additional locomotive consist limits when operating with remote Distributed Power consists. **PTC Operations:** In addition to consist limits above, the total weight of working locomotives in lead consist of conventional freight trains, when operating with ACTIVE PTC on 1% or 2% territory identified in SSI Item 8, must not exceed 40% of total train weight when operating with 15 or more cars. If total weight of working locomotives in lead consist exceeds 40% of the total train weight, sufficient trailing locomotive(s) at rear of consist must be isolated/shut down and set-up as shown below, to reduce the total weight of working locomotive(s) below 40% of the total train weight.

Lead Consist Set-Up

Units	Train Line Hose	Automatic Brake Cut-in	Independent Brake Cut-in	MU Cable	MU Hoses	Air Test Required
Working Locomotive (s)	All	Lead Only	Lead Only	All	All	31.8.4
Non-Working Trailing Locomotive (s)		Cut-out	Cut-in and Released	MU cable not required between units shut down or isolated at rear of working locomotive(s)	Locomotive(s) must be running, or main reservoir hose must be connected to running locomotive	Determine that brakes apply and release on each locomotive

	After setting up lead consist as shown above, the PTC train consist must be updated as follows before proceeding: • Locomotive Count – working locomotive(s) only. • Trailing Tonnage – cars + total weight of non-working trailing locomotive(s). • Operative Brake Count – cars + number of non-working trailing locomotive(s). • Loaded Car Count – cars + number of non-working trailing locomotive(s). Example: Conventional freight train operating with 4 locomotives (205 tons each, 820 total tons) and 20 cars with 1000 trailing tons of car weight. 1. Total Train Weight = (total weight of 4 locomotives + total weight of 20 cars) (820 tons +1000 tons) = 1820 tons. 2. Total weight of working locomotives must not exceed 40% of total train weight. Total Train Weight x 40% = 1820 tons x .40 = 728 tons.

	3. Total weight of working locomotives must not exceed 728 tons (i.e. not more than 3 locomotives in this example). The engineer is required to set up the rear trailing locomotive as outlined in the table above as a non-working locomotive and update the PTC consist before proceeding unless locomotive will be set out, or additional cars added to train to reduce the total weight of working locomotive(s) below 40% of total train weight.

31.8.1 - Conducting a Locomotive Daily Inspection
Under Part A. Control Compartment/Locomotive Cab
Add as new first bullet:

- Locomotive "Blue Card" is displayed under a transparent cover in the cab of each locomotive and the locomotive has not passed the "Do Not Use After" date.

32.2.1 - Unattended Locomotive(s)
Change part 8 to read:

8. When engine is running, make a 20-psi brake pipe reduction after allowing the brake system to charge. If engine is shut down, place automatic brake handle in full service position. When inoperative locomotives (such as those dead due to defect or Bad Order status) are placed in storage or set out enroute, they are exempt from the requirements of Steps 7 &8 for Securing Unattended Locomotives above. - Each locomotive outside of a yard, must have a hand brake applied and tested when left unattended. Test the hand brake by moving the locomotive minimally to verify hand brake is operational.

Under Exceptions,
Change Part 2 to read:
2. Distributed power remote consists may be left standing with all hand brakes applied at any location, even on the main track, for short durations when in the process of making up or disassembling a DP train, or when required due to enroute work event.

33.4 - Rear Remote Limitation
Change Title to read:
33.4 Remote Consist Limits

33.4.1 - Maximum Locomotives
Change rule to read:

33.4.1 Reference Rule SSI Item 5-B / 5-C	**Maximum Locomotives** **Remote Distributed Power Consist Limits:**

Train Type	Maximum Number of

	Locomotives	
	Cut-in Consist	**Rear Consist**
Intermodal Equipment, only	5	2
Manifest Trains	5	2
Empty Bulk Commodity Unit Train (or loaded with some empty cars)	4	2
Loaded Bulk Commodity Unit Train (no empty cars in train)	6	2

En Route Locomotive Failure:
One additional locomotive may be added to a remote distributed power consist provided:

- A locomotive failure occurs in remote consist after train departs initial terminal.
- Train is operating on or will traverse territory with a ruling grade of 1% or greater.
- The non-working locomotive must be isolated or shut down.
  and
- The non-working locomotive must be set-out or moved to the lead consist at next practical location.

When necessary to assist distributed power trains with manned helper operations, additional locomotives may be coupled to a remoted consist or placed on the rear of the train.

Train make-up requirements and helper consist EPA/EDBA limits apply.

33.6.2 - Adding Manned Helper Mid-train or Rear of Train
Add new last paragraph to read:
When adding helpers to other locomotives on a train, control of all locomotives coupled together must be transferred to the lead engineer by plugging in the MU cable, when available.

34.5.1 - Applying or Reapplying Automatic Brakes
Change last paragraph to read:
To prevent the locomotive brakes from applying during an automatic brake application, the independent brake valve handle must be actuated (bailed) when application is made and held in ACTUATE position until exhaust ceases, except when operating with ACTIVE PTC and car count is less than 15 cars.

When operating with ACTIVE PTC and car count is less than 15 cars, the engineer must allow engine brakes to apply during an automatic brake application but is responsible to control amount of locomotive braking to avoid sliding wheels (partial actuation).

35.1 - Reference Materials
Change rule to read:

35.1 Quick Reference Booklets: PB-14264 (G.E.) PB-14265 (Cattron)	**Reference Materials** Employees who set-up or operate remote control equipment must be familiar with the requirements and instructions for the type of system they will operate. While on duty, remote control operators must have the Remote Control Quick Reference Booklet available for the type of system they are operating.

35.3.3 - Setup and Testing
Change reference to read:
Quick Reference Booklets:
PB-14264 (G.E.)
PB-14265 (Cattron)

35.4.2 - Remote Control Transmitter Testing
Change Part B to read:
B. Transfer of Linked RCTs
When transferring linked RCT(s) to another crew:

- Transfer RCT "A" to the foreman/conductor and RCT "B" to the switchman/brakeman.
- RCT tests required in Part A must be completed by the relieving crew before operating the RCL

It is not necessary to unlink the system when transferring linked RCTs to a relieving crew. All required testing can be performed while maintaining the current link session.

Refer to Rule 6.7 Remote Control Zone, part B, when an Active Remote Control Zone is transferred.

35.6.2 - Overriding PSP
Change reference to read:
Quick Reference Booklets:
PB-14264 (G.E.)
PB-14265 (Cattron)

35.7.1 - Remote Control Main Track Operation
Change title and rule to read:

35.7.1	**Remote Control Train Movements** Remote Control train movements include main track movements, yard transfers, local freight movements, etc.; it does not include doubling a train together, using the main track for head room or

	adding cars to a train on the main track, i.e., switching movements. Remote Control train movements must comply with the following: • Remote Control Operator(s) must be qualified: • On the territory movement will traverse (SSI Item 7-B). • On Track/Train dynamics and train handling requirements for the territory the movement will traverse. • On the trailing tons and number of cars/platforms/units/wells being handled. • Movement must not operate: • On 1% or 2% territory identified in SSI Item 8. • On any grade that exceeds 1% for more than a 1/2 mile when trailing tons exceeds 4,000 tons. • Locomotive consist must not exceed: • 3 locomotives. • 24 EPA. • Train consist must not exceed: • 120 cars/platforms/units/wells. • 8500 total trailing tons. In addition, tons per locomotive must not exceed: • 3000 tons per 6 axle locomotive. • 2000 tons per 4 axle locomotive. • Moving Speed Selector to STOP position above 4 MPH is prohibited, except in emergency. • If speed of movement cannot be controlled with Automatic Brake Selector in LIGHT position, movement must be stopped with an emergency application, and must not proceed except as authorized by DSLE.

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Item 10-D: Maintenance of Way Rules, Chapters 40 to 57

40.0 - MAINTENANCE-OF-WAY SUPPLEMENTS TO THE GENERAL CODE OF OPERATING RULES (GCOR)
Change M/W supplement tables as follows:
Bold rule 1.47 and add shading.
Delete Rules 5.16, 8.5, 14.12 and 15.11.
Add rule 2.21 in bold and add shading.

40.1 - Chapter 1 Supplements
Add:
Supplement: 1.47 Duties of Crew Members
M/W employees who ride in the engine control compartment must observe and communicate the name of signals affecting their train in the same manner as train crew members.

40.2 - Chapter 2 Supplements
Add:
Supplement: 2.21 Electronic Devices
When cell phone use is allowed, employees must follow all applicable federal, state and local laws. Use of electronic devices is governed by the following:

- Before using an electronic device, determine that it is safe to do so.
- Operators of vehicles and equipment, including hyrails, must not use an electronic device while equipment is moving. A computer may be used for business purposes, however, the operator must stop equipment when necessary to enter or view information. If the computer is not equipped with a screen black out process that blacks out the screen when equipment is moving faster than 5 MPH, the device screen must not be viewable to the operator. Passengers may use cell phones or computers as long as their use doesn't distract the driver from safely operating the equipment.

Portable Electronic Logging Devices

1. Regulated drivers using a mobile device an Electronic Logging Device (ELD) to complete Federally mandated tasks must follow all applicable federal, state, and local laws.
2. Use of a mobile device as a portable ELD is governed by the following:
    - Drivers must ensure the mobile device is secured to the affixed mount during vehicle operation and visible to the driver when seated in the normal driving position.
    - Be governed by Rules 74.2 and 74.2.1.
    - Use the ELD application as the primary screen when the vehicle is in motion.

Employees must not use electronic devices when:

- Standing or walking on a roadway.
- Foul of any track.
- In close proximity to men or equipment working on or off track.

40.5 - Chapter 5 Supplements
Delete:
Supplement: 5.16 Observe and Call Signals

40.6 - Chapter 6 Supplements
Add:

Supplement 6.27 Restricted Speed / 6.28 Movement on Other than Main Track
Occupying Non-Controlled Track with On-Track Equipment or Hy-Rails
M/W employees who need to occupy non-controlled track with on-track equipment or a hy-rail do not need to establish working limits to travel. All movements must be made in accordance with M/W Rule 42.2.2. M/W employees must also ensure train(s) operating on this portion of track are required to stop within half the range of vision (Rule 6.27 or 6.28 must apply). M/W employee(s) shall not engage in any roadway worker activities, unless on-track safety is provided.

40.7 - Chapter 7 Supplements
Change to read:
Supplement: 7.13 Protection of Employees in Bowl Tracks
During humping operations, before initiating any work activities on bowl tracks, protection must be provided against cars released from the hump into the bowl track(s) that will be fouled.

After conducting a thorough job briefing and receiving the block from the hump yard control operator, the employee will:

A. Electric switches:
1. Take the switch off power.
2. Line the switch away from the track(s) to be protected.
3. Spike or clamp the switch.

B. Pneumatic switches:
1. Ensure the switch is lined away from the track(s) to be protected.
2. Physically block the open switch point and spike or apply a point clamp to the closed point.
3. Remove the block from the open switch point.

The hump yard control operator will not hump any cars into the group in which M/W personnel are working until after the employee spikes the appropriate switch(s).

If, for any reason, the employee needs to use the switch while the track or tracks are still out of service, the employee must communicate with the hump yard control operator and request permission to come out on the lead.

Movement of either on-track equipment or off track equipment, from one track to another, in a remotely controlled hump yard requires the group lead or bowl tracks to be made inaccessible. Employee must:

- Contact the hump yard control operator.
- Conduct a job briefing with the control operator on movements to be made.
- Verify the control operator has ceased humping cars and/or applied the appropriate track blocks

After completing the movement and use of the switch, the employee will follow procedure A or B. After completing procedure A or B the employee must:

1. Ensure the switch is lined away from the track(s) to be protected.
2. Re-spike or re-clamp the switch.
3. Tell the employee controlling switches that:

- The movement is complete.
- The switch is lined and spiked.

Note:

1. Use derails (with red flags), switches lined against, or discontinuity in the rail to protect against the possibility of standing cars rolling into your working limits.

2. Do not operate or leave equipment within or foul of the area between the switch points and clearance points without proper protection.
3. If clearance point is not indicated or visible, determine the clearance point by standing outside the rail of adjacent track and extend arm towards the equipment. When unable to touch the equipment, leave equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.

40.9 - Chapter 9 Supplements
Supplement: 9.17.1 Signal Protection in ABS by Lining Switch
Change sixth bullet to read:

- If no train or engine is heard or seen approaching the area to be protected after 5 minutes, lock the switch and display red flags to establish working limits or protect unsafe track. A properly equipped flagman will be assigned at each entry point to flag all approaching trains or on-track equipment from all directions. M/W employees may then occupy the track or make the track impassable.

41.2 - Operators
Under part reading:
Operators of roadway machines, work equipment and track cars must:
Add new part 4 reading:

4 If machine has been adapted, instructions must be provided for that adaptation.
.

42.2 - Maximum Speeds
Add to table listing maximum equipment speeds:

Rail-Bound Maintenance of Way (MOW) Power Unit	40 MPH

42.2.1 - Movement on Signal Indication
Change to read:

A. Movement of On-track Equipment on Signal Indication within Block Signal Territory
While traveling under the supervision of a conductor/engineer pilot, all self-propelled rail grinders, in-track welders and other equipment designated by the Chief Engineer will run on signal indication not to exceed 50 MPH. Personnel operating M/W equipment on signal indication must have a copy of all track bulletins in effect.

Note: When moving more than one piece of on-track equipment on signal indication, the equipment must be coupled together. If it is not possible to couple the equipment, a separate engineer/conductor pilot must be present for each piece of on-track

equipment or track authority other than signal indication must be used.

B. Movement of Track Geometry Cars on Signal Indication
Geometry cars may operate on signal indication at track speed within block signal territory. Personnel operating geometry cars on signal indication must have a copy of all track bulletins in effect. Geometry cars will operate as follows:

- In CTC or CBS territory, all movement will be made on Track and Time or Track Permit authority.
- In ABS territory, all movement will be made with absolute block established in advance of the movement.

C. Movement of On-track Equipment on Signal Indication when equipped with PTC
On-track equipment may operate on signal indication up to track speed. On-track equipment as designated above, equipped with a working PTC that is engaged, may operate on signal indication. Personnel operating M/W equipment on signal indication must have a copy of all track bulletins in effect.

NOTE: When PTC is out of correspondence, not working, or not engaged; operation on signal indication must cease.

42.2.2 - Other Speed Requirements
Change rule to read:

- Track cars and machines must be operated at a speed that will allow the operator to stop in ½ the distance the track is seen to be clear.
- Where maximum freight train speed is lower, it will govern.
- Reduce speed on curves and branch lines as conditions require and when hy-railing at night.
- When the rail is wet, operators must take into consideration that a greater distance is required to stop a track car under these conditions.
- When approaching workmen or others on or near the track, reduce speed and, if necessary, stop.

42.2.3 - Operation of High-Speed Work Equipment
Change rule to read:
A. General

The following rules govern the movement of high-speed work equipment operating on signal indication or track authority other than signal indication. High-speed work equipment consists only of the following type of equipment:

- Rail-bound production rail grinders (does not include switch and crossing grinders).
- Rail-bound evaluation/geometry cars.
- Rail-bound MOW power units.

1. Equipment must have a locomotive-equivalent horn, headlight and ditch lights to the front in the direction of travel.
2. Equipment must sound horn as prescribed by Rule 5.8.2 (7) when approaching public crossings at grade and when approaching men or equipment on/near the track.
3. Equipment must comply with provisions of Rule 6.32.2.
4. A contractor supervisor or operator who is GCOR trained and examined must be present on the rail grinder.

5. The engineering EIC or engineer/conductor pilot will be responsible for all track authorities and must:
    - Have a copy of and be governed by all track bulletins in effect,
    - Be familiar with all general orders in effect. The engineering EIC must have a copy of all general orders in effect.
6. An employee must establish a train ID to ensure notification by the dispatcher of unforeseen restrictions, track bulletins on crossing warning signals out of service, etc. The request for this train ID must be made to MWOC at least 12 hours in advance of the move.
    - Train ID is not required when operating under a track authority and a job briefing with dispatcher is complete to ensure notification of unforeseen restrictions, track bulletins on crossing warning signals out of service, etc. EIC will instruct the dispatcher to inform them on any changes to unforeseen restrictions, track bulletins on crossing warnings signals out of service, etc.
7. Equipment may operate at high-speed in the same block as other on-track equipment only when a job briefing has been conducted and it has been established that all high-speed movements will be made in a direction away from the on-track equipment. When movement is to be made in the direction of other on-track equipment in the same block, all of the requirements of Rule 42.2.2 must be complied with.
8. Where the maximum freight train speed is lower, it will govern.
9. Equipment will be exempt from all other restrictions contained in the following rules:
    - 42.2.2 Other Speed Requirements (except for item #6 above)
    - 42.6 Grade Crossings
    - 42.11 Operating Over Switches and Frogs
    - 42.11.1 Speed When Passing Through Switches or Derails

    NOTE: If not equipped with working PTC that is engaged, Rail-Bound MOW power unit will operate under track authority only and will be governed by rule 42.2.2.

B. Movement on Signal Indication

High-speed work equipment may operate on signal indication in CTC, Rule 9.14 and Rule 9.15 territories as long as the following rules are complied with (except rail-bound MOW power units not equipped with working PTC that is engaged):

1. When operating with equipment that is equipped with operative PTC in PTC territory, PTC must be engaged.
2. At automatic interlockings, equipment may proceed as follows:
    - If the absolute signal displays a proceed indication (any signal more favorable than STOP), occupy the interlocking limits without stopping. Note: High-speed work equipment must always approach the absolute signal prepared to stop, regardless of the approach signal indication.
    - If the absolute signal displays STOP, stop the equipment and either wait for a proceed indication, or wait for the EIC to follow the instructions on the release box or to operate the M/W key release, if equipped.

C. Movement on Other Than Signal Indication

High-speed work equipment may be operated at speeds up to 49 MPH on track authority as long as the following rules are complied with (except rail-bound MOW power units not equipped with working PTC that is engaged):

1. In Track Warrant Control territory, equipment will only be granted Box 7 "Work Between" authority. Yard limits apply.
2. An engineering supervisor who is M/W rules qualified or an engineer/conductor pilot who is GCOR qualified will be present on the equipment and is responsible for all track authorities.

3. Equipment must approach all control points and interlockings prepared to stop. Equipment must approach all grade crossings within 3000 feet beyond all control points and interlockings prepared to stop.

42.4.2 - Using Track and Time Authority
Change Note to read:
Note: Track and time limits are sometimes issued "across" an interlocking. For example, track and time limits may be issued between CP 1 and CP 10, with an interlocking at CP 5. The track and time permit provides authority to be on the main track in CTC on both sides of the interlocking, as well as throughout the interlocking limits of manual and (Z) manual interlockings; however, it does not provide authority to occupy the interlocking limits of an automatic interlocking. When foul time or track and time is issued within (Z) manual interlocking limits, the protection applies only on the UP route within the interlocking. M/W key release must be operated to provide protection on conflicting routes, if the interlocking is so equipped, and follow the instructions inside the box. Stop and look in both directions to ensure that a safe movement can be made across the interlocking. Therefore, comply with Rule 42.7 and Rule 42.15. This authority is required in addition to the track and time granted.
Exception: *At moveable span bridges designated as a manual interlocking and there are no switches within the limits. When track and time is issued "across" a movable span bridge and EIC of the authority has confirmed with the bridge operator that the bridge will not be moved, the track and time will authorize occupancy of the interlocking limits. The bridge may not be moved without the permission of the EIC of the limits.*

42.5.1 - Movements Through Yard Limits / Restricted Limits
Change Rule To Read :
Before entering or occupying a main track within Yard Limits or Restricted Limits, the track car operator must do one of the following:

- Verify with the train dispatcher, control operator or yardmaster that movements in or movements about to enter the Yard Limits or Restricted Limits will not conflict.
  Note: The track car operator must communicate directly with trains or engines when conflicting movements are known to be present.
- Secure Track and Time within CTC territory.
- Secure a Track Permit within Rule 9.15 territory.
- Request a Form C track bulletin that restricts movements to restricted speed. This request must be made 14 hours in advance and limited in time.
  or
- Provide protection as outlined in Rule 42.15 (Emergency Flag Protection on Controlled Track).
  Exception to rule 42.15: In non-signaled territory or when flag protection is provided by lining a switch in ABS territory per Rule 40.9 (Supplement to 9.17.1), display red flags to establish working limits or protect unsafe track. A properly equipped flagman will be assigned at each entry point to flag all approaching trains or on-track equipment from both directions.

42.5.2 - Maintenance in Yard Limits / Restricted Limits
Change rule to read:
Maintenance work performed on a main track that is in Yard Limits or Restricted Limits must be protected by one of the following:

- Using a Form B track bulletin.
- Obtaining Track and Time.
- Obtaining Track Permit in Rule 9.15 territory.
- Removing the track from service.
- Obtaining a Track Warrant in non-signalized TWC territory.
- In ABS Yard Limits, request a Form C track bulletin that restricts movements to restricted speed. This request must be made 14 hours in advance and limited in time.
  or
- Provide protection as outlined in Rule 42.15 (Emergency Flag Protection on Controlled Track).
  Exception to rule 42.15: In non-signaled territory or when flag protection is provided by lining a switch in ABS territory per Rule 40.9 (Supplement to 9.17.1), display red flags to establish working limits or protect unsafe track. A properly equipped flagman will be assigned at each entry point to flag all approaching trains or on-track equipment from both directions.

42.7.1 - Manual, Automatic, or Symbol (Z) Manual Interlockings
Change Title and Rule to Read:
42.7.1 - Manual, Automatic, or Symbol (Z) Manual Interlockings
Before making movement over an interlocking, review the area timetable and subdivision general order for additional operating instructions. A manual interlocking is indicated by the (M) character, an automatic interlocking is indicated by the (A) character, and the (Z) character indicates a manual interlocking with release box (and a M/W key release if equipped).

Before moving (not working) through *Manual* Interlockings, the track car operator must:

1. Receive foul time, track permit, or track and time from the train dispatcher or control operator to proceed through the interlocking limits.
   or
2. Receive verbal authority from the dispatcher or control operator to proceed through the interlocking limits if track authority is obtained on both sides of the interlocking limits.
3. Advise the train dispatcher or control operator when track cars have cleared interlocking limits.

Before moving (not working) through *Automatic* Interlockings, the track car operator must:

1. Raise and lock or turn off track car's shunts.
2. Operate the M/W key release, if the interlocking is so equipped, and follow the instructions inside the box.
3. Stop and look in both directions to ensure that a safe movement can be made across the interlocking.

Before moving (not working) through *(Z) Manual* Interlockings, the track car operator must:

1. Receive foul time, track permit, or track and time.
2. Raise and lock or turn off track car's shunts.
3. Operate the M/W key release, if the interlocking is so equipped, and follow the instructions inside the box.
4. Stop and look in both directions to ensure that a safe movement can be made across the interlocking.

Notes:

- When foul time, track permit, or track and time is granted by a UP train dispatcher within "Z" manual interlocking limits, the protection applies only on the UP route within the interlocking. To provide protection on conflicting routes, operate the M/W key release, if the interlocking is so equipped, and follow the instructions inside the box.
- If the shunts cannot be turned off or raised and locked, the track car operator may protect the movement through the interlocking by operating the M/W key release and following the instructions inside the box.
- If working within limits of Automatic or "Z" Manual interlockings refer to rule 136.4.8.
- If not equipped with a M/W key release follow these steps:

Step 1:

A Stop equipment before passing the absolute signal governing movement through the interlocking.

B Place a shunt clamp #1 in front (on the equipment side) of both insulated joints at the absolute signal.

C Request the signal from the control operator if necessary.

Note: Shunt #1 must be placed even if the equipment has shunted the track and caused a proceed signal (anything more favorable than STOP) to be displayed.

D Observe the absolute signal to determine that it displays a signal indication more favorable than STOP.

E If the signal continues to display an indication more favorable than STOP, go to Step 3.

Step 2:

A If the absolute signal continues to display a STOP indication, read and comply with the instructions in the M/W key release box, except do not move the equipment past the signal even if the instructions tell you to do so.

B If the signal now displays an indication more favorable than STOP, go to Step 3.

C If the signal continues to display a STOP indication, do not occupy the interlocking limits. Call a signalman for assistance.

D A signalman may authorize movement of the equipment through the interlocking after providing proper protection against conflicting movements. If a signalman cannot provide protection, make further movements only under flag protection (Rule 42.15).

Step 3:

A Walk to the absolute signal and locate the two insulated joints associated with that signal. The first insulated joint should be located close to the signal and the second insulated joint should be located no more than 13 feet past the signal.

B Place a shunt clamp #2 a few feet past the second insulated joint so that the signal and the two insulated joints are between shunt # 1 and shunt #2.

Step 4:

A Return to the equipment and verify that the signal now displays a STOP indication.

* If the signal still displays a proceed indication, check shunt #2 and repeat Step 3 until the signal displays a STOP indication.

B Move the equipment through the interlocking.

Step 5:

A Remove shunt clamp #1.

. **B** Remove shunt clamp #2.
.

42.7.2 - Reserved

Change Title and Rule To Read :
Rule Title :Reserved

Rule has been deleted.

42.15 - Emergency Flag Protection on Controlled Track
Change title and rule to read :
42.15 - Emergency Flag Protection on Controlled Track

In ABS territory, apply Rule 40.9 (9.17.1 Signal Protection in ABS by Lining Switch), if possible.

Procedures for establishing working limits using exclusive track occupancy (typically used in emergency situations) on **controlled** track using Flagman protection.

Employee(s) should immediately attempt to contact the railroad dispatcher/control operator to obtain an authority in the event of an emergency, if possible.

On **controlled** tracks, when establishing working limits utilizing flagman protection, follow these procedures:

- The flagman must be trained and qualified for the duties of flagman.
- The EIC must announce on the applicable radio channel the establishment of working limits via flagman protection, if possible.
- The Flagman must be equipped with a red flag to provide a stop signal.
- Flagmen must immediately go 2 miles in each direction and protect all possible access to the working limits. Flagmen should be stationed at each entry point into the working limits. The flagmen must prevent entry into the working limits and only allow movements into the working limits as instructed by the EIC.
- Flagmen must remain at their designated positions until flagman protection is no longer required and can only be relieved of these duties under the authority of the EIC.

45.1 - Loading/Unloading Precautions
Change title and rule to read:
45.1 - Handling Material with Equipment

Prior to Handling Material:
Perform a risk assessment of load and unload area to identify and mitigate potential hazards including overhead wires, structures, and tripping hazards.
Perform a job briefing with all employees affected; including Red Zones and moves to be made.

While Handling Material:

Only employees actively engaged in handling the material are allowed in the Red Zone and only while complying with procedures outlined in Rule 136.7.3 Working Around Roadway Machines.
When required to manipulate or control a suspended load, utilize push-sticks or tag lines. When a push-stick or tagline is inadequate for the task to be completed, hands may be used. Always keep hands and other body parts clear of pinch points.

Note: Before determining a push-stick or tagline is inadequate, a job briefing must be conducted with your supervisor.

45.2 - Loading Materials on Flat Cars
Change title and rule to read:
45.2: Loading and Unloading Material on Cars
Employees are not allowed in or on cars when loads are being lifted unless there is sufficient clearance from any potential side or end drift of the load.
Employees are not allowed in cars that are being loaded or unloaded utilizing a magnet or bucket.
Employees must not enter a car loaded with switch panel(s), except as outlined in Chief Engineer Instruction Bulletins.
When loading material on flat cars, load must be secured properly.

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Item 10-E: Safety Rules, Chapters 70 to 83

70.9 - Reserved
Change title and rule to read:

70.9	**Removing EOCC/COCC** When removing an End of Car Cushioning unit (EOCC) or Center of Car Cushioning unit (COCC), the unit must be completely drained of pressure and fluid. If the unit cannot be completely drained of pressure, the unit must be gagged with a welded metal strap prior to removal to prevent separation.

71.2.3 - Near Retarders
Change rule to read:

71.2.3	**Near Retarders** Hearing protection is required within 150 feet of retarders during humping and trimming operations. Dual hearing protection (ear plugs and muffs) is required within 10 feet of these operations. When near operating retarders: • Engine windows and doors must be closed when passing through operating retarders. All occupants must be inside the locomotive cab. • Do not ride a car through operating retarders.

	Exception: Dual hearing protection is not required when riding through or working around Dowty retarders unless dual hearing protection is needed for other purposes.

71.5.2 - Contact Lenses
Change first paragraph to read:
Do not wear contact lenses when:

- Working in areas where wind, dust, or other foreign matter constitutes a hazard.
- Working with chemicals that may splash, mist, or pose a vapor hazard.
- Welding when the process or materials pose a gas, vapor, or fume hazard.

71.7 - Footwear
Change first bullet and add new second bullet as follows:

- Boot height must be a minimum of 6 inches for men and 5.5 inches for women when measured from the floor to the topmost part. At no time should the measurement from the floor to any part of the collar be less than 4 1/2 inches.
- The boot must cover the ankle.

72.3 - Fire Protection Device Inspection
Change to read:

72.3 *Ref. SRM Section AH*	**Fire Protection Device Inspection** Fire protection devices and suppression systems must be inspected and maintained as required. Tampering with devices is prohibited. **A. Fire Extinguishers** Annual fire extinguisher maintenance check must be performed by qualified contractor. Monthly fire extinguisher inspections must be performed to determine: • There is no evidence of physical damage. • The seal is not broken. • It is fully charged. • It is properly tagged with inspection date noted on tag. • It is properly marked. Vehicles must not be parked or material placed or stored that block fire hydrants. Company vehicles (except automobiles), mobile shop equipment, and ride-on-track equipment must carry a properly maintained and inspected fire extinguisher of the correct class to aid in fire suppression.

	B. Suppression Systems and Alarms Alarms, sprinkler systems, detectors, and suppression systems must also be inspected in accordance with UPRR Guidelines.

74.2.1 - Qualified Drivers
Under part reading:
When driving a commercial motor vehicle, drivers must have in their possession a valid:
Change 5th bullet to read:

- Hours of Service (HOS) Log with current day and previous seven days when driving a commercial motor vehicle with a GVWR greater than 10,000 lbs. This includes electronic HOS logs (ELD). Paper logs are required when electronic HOS is not available due to an outage. Electronic HOS logs (ELD) must be back in service within 8 days or vehicle is out of service until electronic HOS logs (ELD) is back in service. Drivers must submit an image of their paper log to UPRR DOT Compliance Department within 24 hours of the paper log date at UPDOT@up.com.
  (Exception: Signal Department HOS employees).

Under part reading:
Federal Motor Carrier Safety Regulations (FMCSA) require UPRR to have on file, a completed driver's qualification file that includes:
Delete bullet reading:

- Annual Violation and Review Record.

Under part reading:
Drivers of vehicles with (GVWR) greater than 10,000 lbs. must complete and submit documentation and / or have in vehicles as required by UPRR Department of Transportation and Federal Motor Carrier Safety Regulations. These documents include:
Change 1st and 4th bullets to read:

- **HOS Logs**- Qualified drivers who drive a CMV must submit HOS log for date driven and previous seven days. Submission of HOS logs are required daily with Electronic HOS logs (ELD) or paper logs due to ELD outage.
- **DVIR (Driver Vehicle Inspection Report)** - Qualified drivers who drive a CMV must complete pre- and post- trip daily vehicle inspection reports (DVIR). Submission of DVIR is required for each operated vehicle and trailer, if towed for each tour of duty.

Add as last bullet:

- **Portable Electronic Logging Device (ELD)** - Active and qualified drivers personally assigned a company mobile electronic device for use as a portable ELD:
  - The assigned driver is responsible for the device and must comply with Union Pacific's Mobile Device Rules.
  - Report a broken device within 24 hours to UPRR DOT Compliance Department, your supervisor and create an e-Coms Service Request for a replacement device.
  - Report a lost or stolen device to RMCC 1-888-877-7267 within 2 hours, followed by the UPRR DOT Compliance Department, your supervisor and create an e-Coms Service Request for a replacement device. Document the RMCC ticket number within the e-Coms request.

- Drivers are responsible for reporting to duty with their device present and fully charged.

74.3 - Cell Phone and Electronic Device Use
Change third paragraph to read:
The use of electronic devices for anything other than voice communication or audible navigation is prohibited while operating a motor vehicle.

74.12 - Off Road and Yard Vehicles
Change to read:

74.12	**Off Road and Yard Vehicles** Only authorized drivers are permitted to operate off-road and yard vehicles. Compliance with other vehicle rules, i.e., speed, inspection, seatbelts, etc. also apply when operating these vehicles. When rules for operation and care are furnished by the manufacturer they must be observed. Operate vehicles only in designated areas. Reckless or careless driving is prohibited. Operators of vehicles must: • Maintain control at all times. • Keep arms and legs inside the vehicle at all times. • Be prepared to stop within one half their range of vision short of any person or object. • Avoid striking standing or moving equipment or being struck by moving equipment. • Maintain sufficient clearance to tracks and equipment on those tracks. (If tracks must be fouled or proper clearance cannot be maintained, movement must be protected). • Not exceed the following speeds when operating ATV/UTV: • 5 mph when operating between tracks. • 10 mph on roadways. • Cross rail only at designated crossings and road ways. Riders are not permitted on vehicles unless provided with a seat. Riding side saddle on off-road and yard vehicles is prohibited. Vehicles designed for one person must not be occupied by more than one person. Operators and passengers of ATVs must wear approved DOT helmets. Do not adjust or disable any speed limiting device.

76.3.14 - Jacking Equipment
Change paragraph reading:
A five minute settling period must be observed when jacking on unpaved or uneven surfaces.
To read:
When using dual portable jacks, jack equipment high enough that the weight is off the truck bolster and observe a five-minute settling period. If the equipment remains stable and level, proceed with jacking, otherwise lower the equipment, make necessary adjustments, and repeat,

76.3.15 - Securing Jacked Equipment
Change part 2 to read:

2. Do not go under or place any part of your body under equipment unless it is secured from movement and has proper secondary support in place. Secondary supports are required once the trucks are removed and shall consist of:
    - Stands or blocking of sufficient capacity to support the load.
    - rip track or shop applications, using in-floor jacks with positive stop features will be considered the same as using secondary support; otherwise, stands or blocking must be used.

77.4 - Positioning

Change third paragraph to read:

Loads must not be suspended by crane or other hoisting device during transit to a work location. Use a flat car or other conveyance to release the weight from the boom during transit.

81.2.1 - Walking Near or Crossing Tracks

Change rule to read:

81.2.1 *Ref. Rule 80.4* *81.1.1*	**Walking Near or Crossing Tracks** When assigned duties require standing, walking, or working between or near tracks, keep a careful lookout in both directions for trains, locomotives, cars or other moving equipment. Expect movement at any time, on any track, in either direction. Do not: • Cross or step foul of tracks closely in front of or behind moving equipment. • Rely on hearing the approach of a train or equipment. • Sit on, stand or walk between, or foul the rails of any track unless required by assigned duties. Before fouling, walking near, or crossing tracks: • Look in both directions and ensure no movement is closely approaching. • Look for and avoid conditions that could interfere with footing. • Walk straight across tracks, limiting delay. • Step over rails, frogs, switches, guardrails, etc. Engineering employees must comply with proper On-Track Safety procedures when engaged in work activities that may prevent an employee from detecting and moving rapidly away from an approaching train or other on-track equipment such as: • Inspection, construction, maintenance, or repair. • Carrying tools or material that may restrict motion, or impair sight or hearing.

81.2.2 - Sufficient Distance

Delete first bullet reading:

- Cross or step foul of tracks closely in front of or behind moving equipment.

81.5.4 - Establishing Protection Before Crossing Through or Fouling Equipment
Change rule to read:

81.5.4 *Ref. Rule(s)* 5.13 7.2 70.3 *81.2.2* *81.5* *81.11.3* *81.13* *81.13.1*	**Establishing Protection Before Crossing Through or Fouling Equipment** **Red Zone Protection:** A Train, Engine or Yard employee must establish Red Zone Protection before fouling or performing work on equipment coupled to or on the same track as an engine occupied by an engineer, active remote control engine or other occupied motive equipment. Red Zone Protection is not required when: • Pulling pins. • Employee is protected by Rule 5.13. • Using a crossover platform to reposition: • While on the trailing end of rear car. • After movement has stopped when riding the leading end of lead car of a shoving movement. • Ascending, descending, or crossing through locomotives. • Using a brake stick if body does not break the plane. • It is determined: • No cars will be kicked, shoved, or pulled from the track (Rule 7.2). and • Any occupied motive equipment on the track is moving away from equipment to be fouled, will not return toward equipment, and is separated a sufficient distance (Rule 81.2.2). **Establishing Red Zone Protection:** Before fouling equipment coupled to or on same track as locomotives under their control, engineer or primary control operator must establish protection by verifying set and centered condition. When required, other employee(s) must establish Red Zone Protection as follows: Note: This applies to TE&Y employees only. All other crafts will be governed by their department's rules. 1. Each employee must request Red Zone Protection from the engineer or primary operator through a face-to-face job briefing; radio communication announcing job or locomotive ID, name or position, and track name/number; or agreed upon hand signal. 2. The engineer or primary control operator must fully apply locomotive brakes, apply train air brakes if necessary, center the reverser / direction selector and confirm Red Zone Protection or Set and Centered condition with each requesting employee via: • Face-to-face job briefing. • Radio communication announcing job or locomotive ID, track name/number, and Red Zone or Set and Centered condition. or

	• Agreed upon hand signal or whistle cadence 5.8.2 (2). **3** Allow movement to stop and slack to adjust before entering Red Zone. **Releasing Red Zone Protection:** 1. Each employee who established Red Zone Protection must convey to the engineer or primary control operator when clear of the Red Zone by face-to-face job briefing, radio communication, or agreed upon hand signal. 2. Before releasing the locomotive brakes or initiating movement, the engineer or primary control operator must confirm release of Red Zone Protection with each employee who requested protection. Confirm release by face-to-face job briefing, radio communication, agreed upon hand signal or whistle cadence 5.8.2 (3).

81.7 - Riding Equipment
Part B. Do Not Ride
Change 1st bullet to read:

- On the side of equipment when close clearance conditions exist or on platforms when overhead hazard exists.

Change 9th bullet to read:

- On sill step of equipment (stirrup beneath ladder), engine steps, caboose steps or vestibule steps of cars when moving over:
  - Any public street or highway crossing.
  - Crossings within a yard unless it is known crossing is protected, or no traffic is approaching or stopped at the crossing (ie. Yard Access Crossing).

Part C. How to Ride
Under fourth bullet, change fourth sub-bullet to read:

- May ride on end platform of leading end of leading car or on the trailing end of the last car in direction of movement of ARMN, JRSX, and other similar cars equipped with an end platform and hand rails. The platform is located on the "A" end of the car.

81.11.3 - Brake Sticks
Change rule to read:

81.11.3 *Ref. Rule(s) 81.5.4*	**Brake Sticks** Approved brake sticks may be used to operate: • Hand brake wheels. • Knuckles. • Angle cocks located on the side nearest where you are standing.

	• Hand brake quick release** Precautions when using brake sticks: • Car must be stopped. • Work from the field side rather than between adjacent tracks when possible. • Keep handle clear of moving equipment on adjacent track. • Maintain proper footing and do not exert unnecessary force. • When crossing through equipment, may place brake stick on adjacent car platform not being utilized to cross through, and immediately retrieve once on the other side. Do not: • Place the butt of the brake stick against your body. • Climb, cross, or ride equipment with the brake stick in your hand. • Use brake stick while in or on a vehicle. • Operate hand brake quick release with a brake stick unless utilizing Precision Cut models XL600 (60"), XL670 (67"), or XL750 (75"). • Use brake sticks less than 5 feet in length to reach across drawbar to operate hand brake wheel. ****Only Precision Cut models XL600 (60"), XL670 (67"), or XL750 (75") may be used to operate hand brake quick release.** 

81.13.1 - Working Between Equipment
Change entire rule to read:

81.13.1 *Ref. Rule(s)* *81.2.2* *81.5.4* *81.13.3*	**Working Between Equipment** Do not go between, in front of, or behind equipment to arrange knuckles, couplers, or manipulate other appliances for any reason without sufficient distance. Allow slack to adjust before going between equipment to perform work. If work will be performed between equipment on tracks where cars are likely to roll together, comply with the following: 1. At locations where other jobs are working, confirm no movement will be made into or out of the track, unless protection has been established per Rule 5.13 or Rule 7.13. 2. A visual observation must be made to confirm equipment is stopped and separated a sufficient distance. (If necessary to prevent movement, apply hand brakes before separating equipment.) 3. When working on equipment not attached to a locomotive, apply hand brake(s) on the end closest to where work will be performed (minimum of two on cuts of two or more cars). 4. While working on equipment, employee must: • Maintain visual contact with separated equipment*.

	or • Have another employee provide lookout protection until work is completed. * When working at night or low light level, a hands-free light must be utilized by employee performing work while maintaining visual contact with any equipment not attached to a locomotive. When a hands-free light or other employee is unavailable, secure equipment not attached to a locomotive before performing work.

81.13.2 - Coupler Adjustment
Change entire rule to read:

81.13.2 *Ref. Rule(s)* *81.2.2*	**Coupler Adjustment** When necessary to make a coupler adjustment use a Knuckle-Mate or coupler alignment strap, if readily available. Do not: • Lift the full weight of couplers. • Kick or use your foot to make a coupler adjustment. • Apply excessive force. Coupler adjustment procedure: • Work from the side and ensure the knuckle is locked in the closed position. • Work with your back against the coupler and feet shoulder width apart. • Place both hands behind back, under coupler assembly, and use legs to apply force, slowly pushing the coupler towards the center position with rear-end/low back, while using hands to lift. (Be alert for sudden unexpected movement.) If unable to make the adjustment using reasonable force, use a Knuckle-Mate or coupler alignment strap, or report to proper authority.

81.19 - Air Brake Rigging
Change rule to read:

81.19 *Ref. Rule(s)* *32.7.3*	**Air Brake Rigging** When working on the air brake rigging of cars or other equipment, except locomotives: • Connected to an air source (e.g., locomotives, yard air), the air brakes must be cut out and the air reservoir(s) must be drained until repairs are completed. • Not connected to an air source, the brake pipe must be open to atmosphere on both ends of the equipment and air reservoir(s) must be drained until repairs are completed.

82.1 - Switches and Derails
Change second sentence to read:
Do not:

- Sit or lean on any part of switch or derail.
- Approach or stand within 5 feet of a switch or derail that will be operated while equipment is fouling, standing on, or moving over the switch.

82.3 - Switch Operation
Delete part reading:
After operating a switch or derail:

1. Look in both directions and be alert for moving equipment on adjacent tracks.
2. Visually inspect the switch or derail, confirming the points fit properly and the target, if so equipped, corresponds with the switch's position.

Add new rule:
83.3.3.1 - Establishing Protection Before Working Near Lift Equipment
Personnel performing intermodal work must establish their own Work Zone protection before performing work where there is potential to be struck by the lift equipment or equipment being handled by the lift equipment. Work Zone protection is in addition to the on-track protection provided by 81.23 or 5.13.

Establishing Work Zone Protection:
Before fouling a railcar that lift equipment is positioned over, the lift equipment operator must establish their own protection by clearing the lift equipment away from the railcar.

When required by duties, other personnel performing intermodal work must establish Work Zone protection as follows:

1. Request Work Zone Protection from the lift equipment operator through a face-to-face job briefing, agreed upon hand signal, or radio communication.
2. Actions required before entering the Work Zone:
   - **A** Allow movement of lift equipment to stop.
   - **B** Lift equipment operator must:
     - Clear lift equipment away from the railcar and apply emergency or parking brakes, if equipped.
     - Remove hands and feet from all lift equipment controls.
     - Announce permission to enter the Work Zone through a face-to-face job briefing, agreed upon hand signal, or by radio communication.

Releasing Work Zone Protection:

- Each individual who established Work Zone Protection must convey to the lift equipment operator when they are clear of the Work Zone through a face-to-face job briefing, agreed upon hand signal, or by radio communication.

- Before initiating movement, the lift equipment operator must confirm release of Work Zone protection with each individual who requested protection. Confirm release through a face-to-face job briefing, agreed upon hand signal, or by radio communication.

Application: Lift equipment is a general term for any equipment that can be used to lift and lower loads such as Cranes, Packers, Forklifts, etc…

83.3.7 - Standing on Platform

Change rule to read:

83.3.7	**Standing on Platform** Do not stand on a platform or well of a car while that same platform or well is being loaded or unloaded. If required to perform work on the same car or platform that is being loaded, protection must be established.

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Item 10-F: Instructions for Inspecting, Welding and Grinding of Rail and Track Components Chapters 100 to 119

Rule 102.3.1: Approved Products

Change Table 102E To Read :

Table 102E Carbon Arc Cutting

Item Number	Approved Electrodes	Welding Parameters
4600223	Arcair 5/32" x 12" (round)	90 - 150 Amps
4600268	Arcair 3/16" x 12" (round)	200 - 250 Amps
4600312	Arcair 1/4" x 12" (round)	300 - 400 Amps
4600357	Arcair 5/16" x 12" (round)	350 - 450 Amps
4600401	Arcair 3/8" x 12" (round)	450 - 500 Amps
4600445	Arcair 3/8" x 5/32" x 12" (flat)	250 - 300 Amps
4600490	Arcair 5/8" x 3/16" x 12" (flat)	300 - 500 Amps

102.5.3 - Jump Starting

Add:

Jump starting a welding machine from another source is prohibited.

- If welding machine will not start, equipment must be serviced by a work equipment mechanic or service provider to have electrical system checked or battery and components replaced as necessary.

103.3.4 - Fire or Explosive Potential
Change rule to read:
Welding, cutting or heating on piston heads, hollow casting, or containers such as drums, barrels, or tanks is prohibited. Sparks must never be directed toward any enclosed oxy-fuel or fuel gas equipment. In addition, sparks within 35' of such enclosed equipment must be contained by spark shields.

103.13 - Leak Test
After first five bullets, add sentence reading:
Leak test must be conducted in a well-ventilated area with no sources of ignition present.

103.16 - Draining the System
Change first sentence to read:
When work is complete, the oxy-fuel system must be drained and equipment properly stored. This procedure must be conducted in a well-ventilated area with no sources of ignition present.

Rule 105.2: Purpose of Welding Ends
Delete Last Sentence.

Rule 110.23: Minimum Take Down Times
Change Last Sentence to Read :
After removing slag pan, place it in a safe dry location where it can continue to cool.

110.27 - Weld Tolerance Specifications
Change Rule To Read:

To improve overall track geometry and reduce Evaluation Car exceptions, the Thermite maximum weld tolerances below must be followed.
(Refer to Table 110F)
These are cold (ambient temperature), finish ground specifications.

Table 110F Weld Tolerance Specifications for Finished Thermite Welds

	Vertical Offset (VO) (1)	Combined Vertical Offset (VO) and Vertical Crown (VC) (2)	Horizontal Offset (HO) (3)	Combined Horizontal Offset (HO) and Horizontal Kink (HK) (4)	Base Horizontal Offset (BHOS) (5)	Base Vertical Offset (BVOS) (6)
Thermite Welding	0.020"	0.040"	0.030"	0.040"	0.060"	0.250"

1. Vertical Offset measurement is taken adjacent to weld on top of rail head center. Maximum variance if rail base is not offset, otherwise maintain maximum Base Vertical Offset and grind top of rail surface to a gradual taper as defined in Table 110E.
2. Combined Vertical Offset and Vertical Crown expressed as a tangential deviation 18 inches from center of weld.

3. Horizontal Offset measurement is taken adjacent to weld on side of rail head.
4. Combined Horizontal Offset and Horizontal Kink expressed as a tangential deviation 18 inches from center of weld.
5. Base Horizontal Offset measurement is taken adjacent to weld on side of rail base.
6. Maximum Base Vertical Offset will not exceed 0.250 inch on rails with same base width.

Rail head offsets (top and sides) are to be tapered to eliminate 'notch' effect and reduce impact loading.

Weld collar must be ground as noted for thermite welds including head welds:

1. Under rail head, all sharp edges must be rounded. On thermite head welds, the collar must be ground smooth with underside of rail head. (Care must be taken to prevent gouging of rail or weld).
2. On top of rail base, after removing risers, any sharp jagged edge must be ground smooth.
3. Grinding of web is not necessary unless any sharp or jagged edge is present, and only to remove minimal amount of web collar – over grinding is prohibited.

After a thermite weld has been installed, use a straightedge to measure for vertical offset, combined vertical offset and vertical crown, horizontal offset, combined horizontal offset and horizontal kink, base horizontal offset, base vertical offset, and over grind. All measurements to be taken with straightedge centered on weld. (See Figures 110L – 110R)

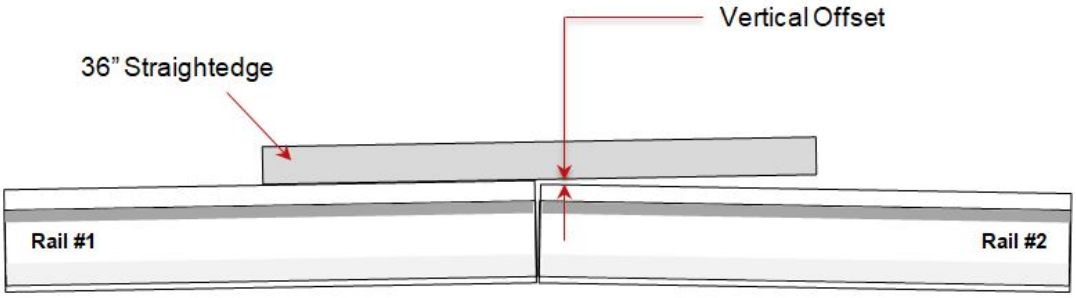

Figure 110L *Vertical Offset*

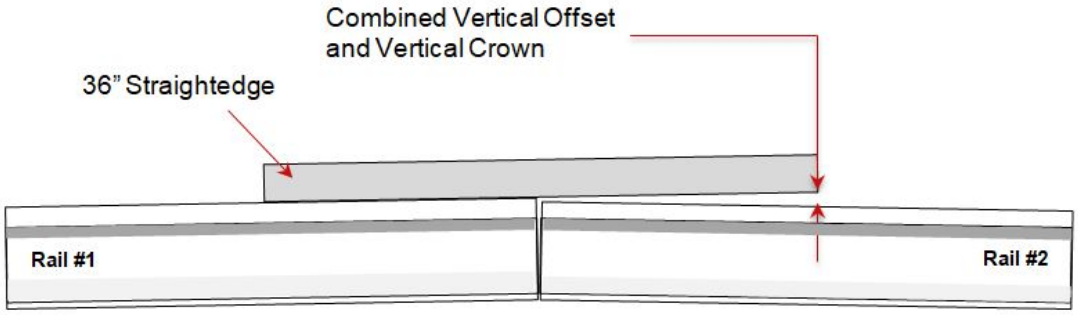

Figure 110M *Combined Vertical Offset and Vertical Crown*

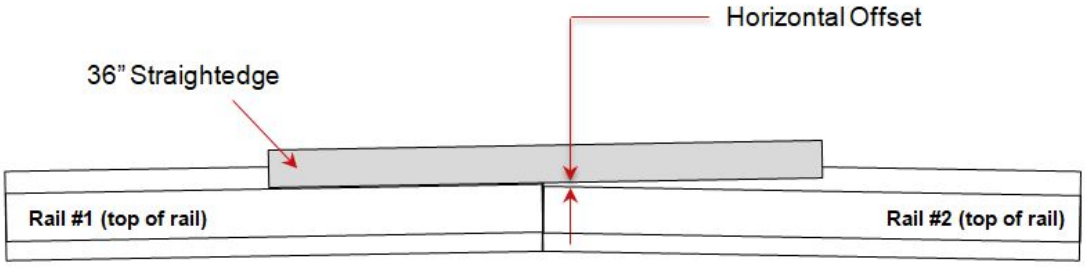

Figure 110N *Horizontal Offset*

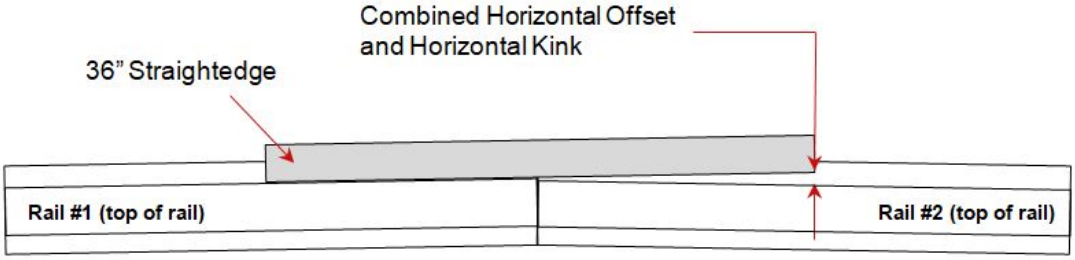

Figure 110O Combined *Horizontal Offset and Horizontal Kink*

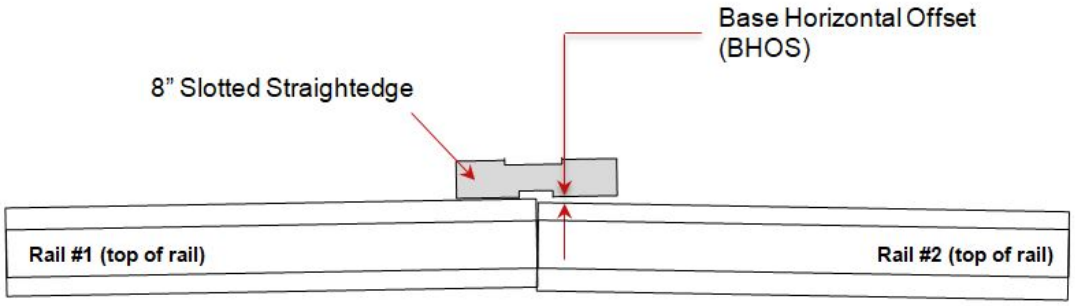

Figure 110P *Base Horizontal Offset*

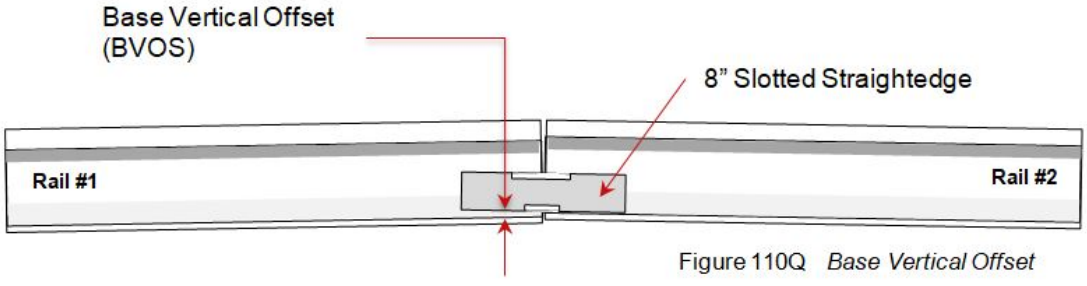

Figure 110Q *Base Vertical Offset*

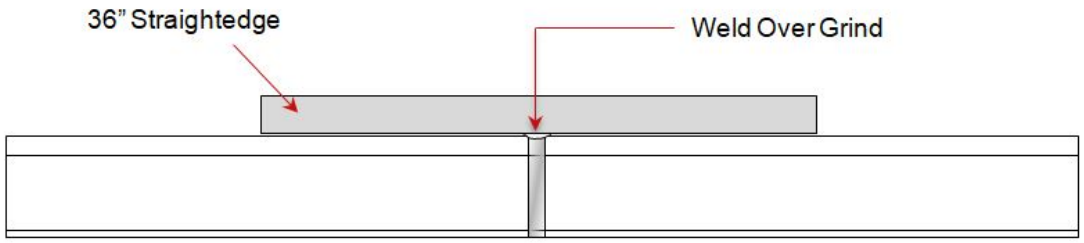

Figure 110R *Weld Surface Over Grind*

Welds must not be over ground. Use the straightedge periodically to check progress.

110.28 - Identify Weld
Change Rule To Read:

All thermite welds must be identified by placing the following information on the outside web of the rail near the center axis:

- Date weld was made.
- Weld manufacturers initials (RB for Railtech-Boutet).
- Weld type (SW for 1 inch weld, WGW for wide gap weld and THW for thermite head weld).
- Welder employee id number.
- Grinder employee id number.

Information will be written using a white metal marker (item number 410-4012). This weld identification is in addition to the required CWR written information when making final adjustment as shown in Figure 110S.

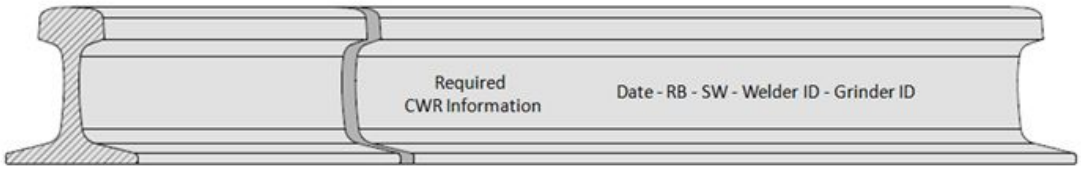

Figure 110S *Weld Identification Placement*

Rule 111.22: Minimum Take Down Times
Change last sentence to read:
After removing the slag pans, place them in a safe dry location where they can continue to cool.

111.26 - Weld Tolerance Specifications
Change Rule To Read:

To improve overall track geometry and reduce Evaluation Car exceptions, the Thermite maximum weld tolerances below must be followed.
(Refer to Table 111F)
These are cold (ambient temperature), finish ground specifications.

Table 111F Weld Tolerance Specifications for Finished Thermite Welds

	Vertical Offset (VO) (1)	Combined Vertical Offset (VO) and Vertical Crown (VC) (2)	Horizontal Offset (HO) (3)	Combined Horizontal Offset (HO) and Horizontal Kink (HK) (4)	Base Horizontal Offset (BHOS) (5)	Base Vertical Offset (BVOS) (6)
Thermite Welding	0.020"	0.040"	0.030"	0.040"	0.060"	0.250"

1. Vertical Offset measurement is taken adjacent to weld on top of rail head center. Maximum variance if rail base is not offset, otherwise maintain maximum Base Vertical Offset and grind top of rail surface to a gradual taper as defined in Table 111E.
2. Combined Vertical Offset and Vertical Crown expressed as a tangential deviation 18 inches from center of weld.
3. Horizontal Offset measurement is taken adjacent to weld on side of rail head.
4. Combined Horizontal Offset and Horizontal Kink expressed as a tangential deviation 18 inches from center of weld.
5. Base Horizontal Offset measurement is taken adjacent to weld on side of rail base.
6. Maximum Base Vertical Offset will not exceed 0.250 inch on rails with same base width.

Rail head offsets (top and sides) are to be tapered to eliminate 'notch' effect and reduce impact loading.

Weld collar must be ground as noted for thermite welds including head welds:

1. Under rail head, all sharp edges must be rounded. On thermite head welds, the collar must be ground smooth with underside of rail head. (Care must be taken to prevent gouging of rail or weld).
2. On top of rail base, after removing risers, any sharp jagged edge must be ground smooth.
3. Grinding of web is not necessary unless any sharp or jagged edge is present, and only to remove minimal amount of web collar – over grinding is prohibited.

After a thermite weld has been installed, use a straightedge to measure for vertical offset, combined vertical offset and vertical crown, horizontal offset, combined horizontal offset and horizontal kink, base horizontal offset, base vertical offset, and over grind. All measurements to be taken with straightedge centered on weld. (See Figures 111M – 111S)

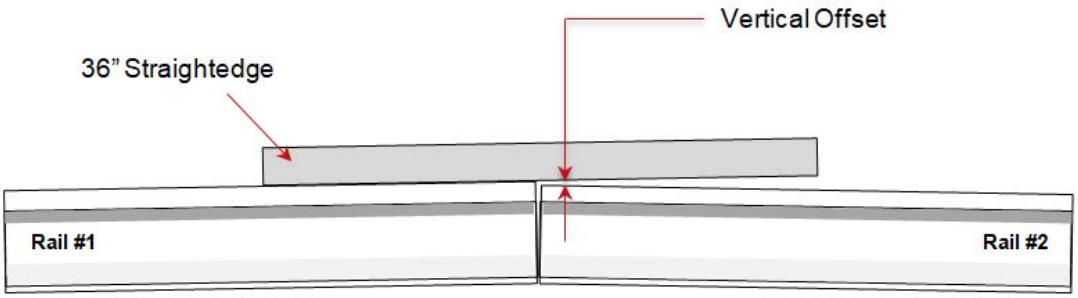

Figure 111M *Vertical Offset*

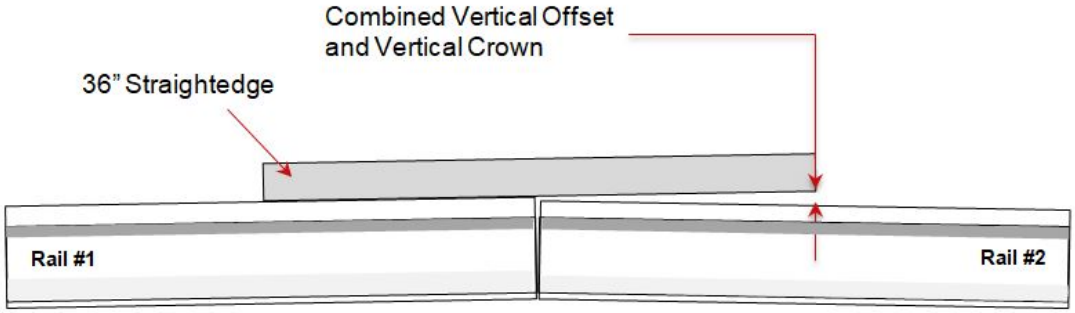

Figure 111N *Combined Vertical Offset and Vertical Crown*

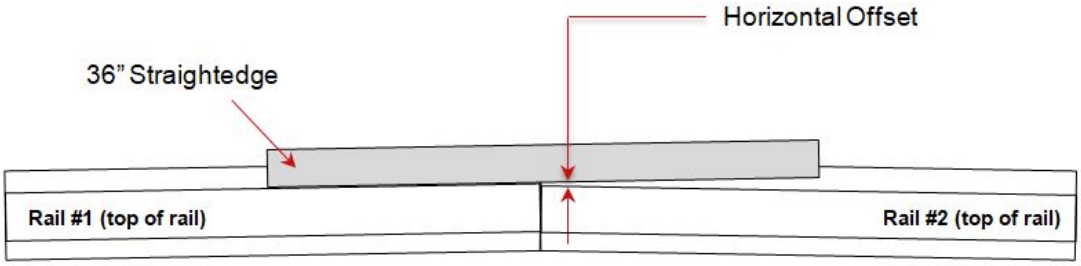

Figure 111O *Horizontal Offset*

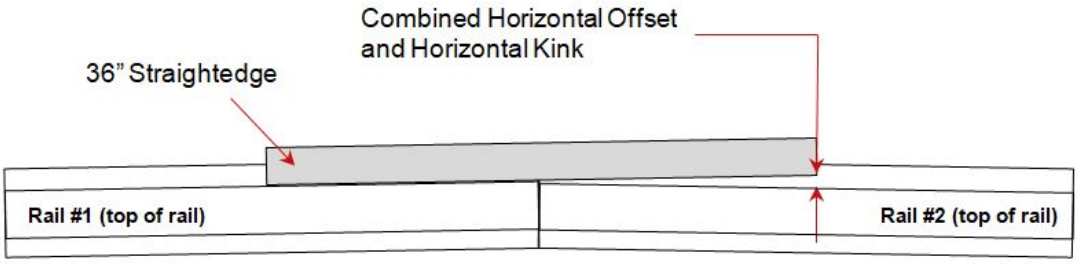

Figure 111P Combined *Horizontal Offset and Horizontal Kink*

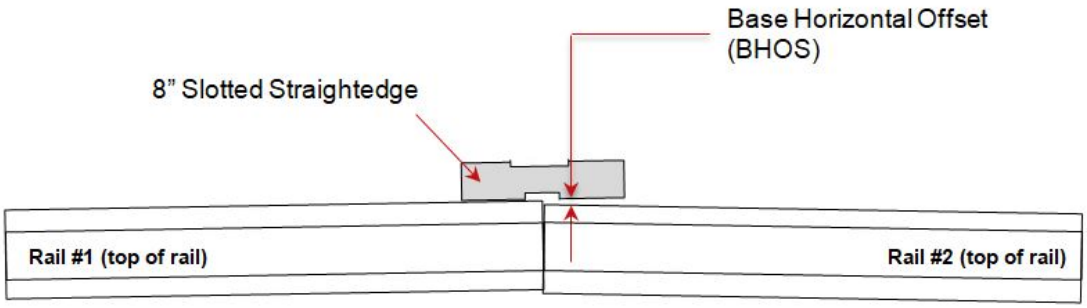

Figure 111Q *Base Horizontal Offset*

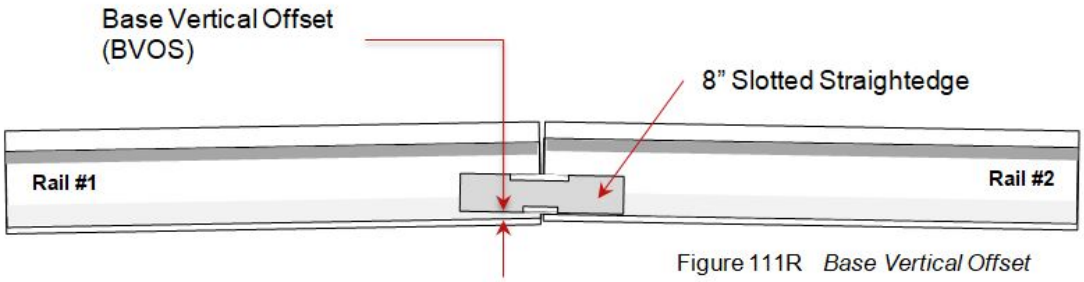

Figure 111R *Base Vertical Offset*

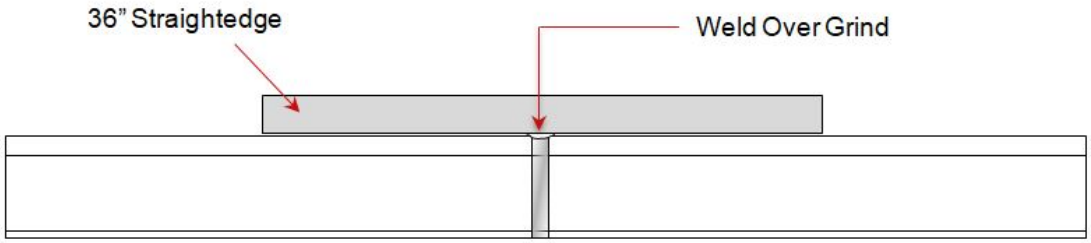

Figure 111S *Weld Surface Over Grind*

Welds must not be over ground. Use the straightedge periodically to check progress.

111.27 - Identify Weld
Change Rule To Read:

All thermite welds must be identified by placing the following information on the outside web of the rail near the center axis:

- Date weld was made.
- Weld manufacturers initials (OT for Orgo-thermit).
- Weld type (SW for 1 inch weld, WGW for wide gap weld and THW for thermite head weld).
- Welder employee id number.
- Grinder employee id number.

Information will be written using a white metal marker (item number 410-4012). This weld identification is in addition to the required CWR written information when making final adjustment as shown in Figure 111T.

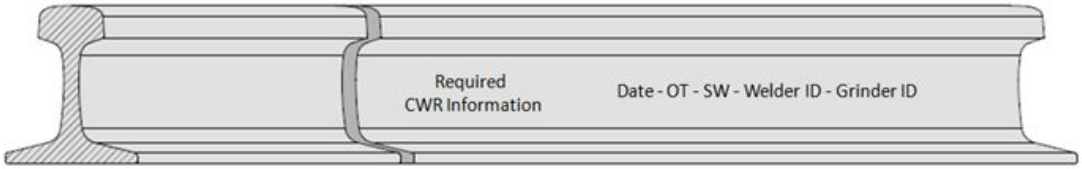

Figure 111T *Weld Identification Placement*

112.12.1 - Rail Head
Change Formula and Table 112A to read:

$$\text{Minimum Taper Length} = \frac{\text{Offset (thousandth of an inch) x 3 feet}}{0.060 \text{ inch}}$$

Table 112A Length of Taper	
Offset	**Offset Taper Length**
0.010 inch	0.50 feet (6 inches)
0.020 inch	1.00 feet (12 inches)
0.030 inch	1.50 feet (18 inches)
0.040 inch	2.00 feet (24 inches)
0.050 inch	2.50 feet (30 inches)
0.060 inch	3.00 feet (36 inches)

112.15 - Weld Quality Standards
Change Rule To Read:
Finished welds must meet the following requirements.

- These are cold (ambient temperature), finish ground specifications. (Refer to Table 112B)

Table 112B Maximum Tolerance of Finished Ground Weld						
	Vertical Offset (VO)(1)	Combined Vertical Offset and Vertical Crown (2)	Horizontal Offset (HO)(3)	Combined Horizontal Offset and Horizontal Kink (4)	Base Horizontal Offset (BHOS) (5)	Base Vertical Offset (BVOS) (6)
Class 1-5 Trk	0.025"	0.060"	0.030"	0.040"	0.060" New 0.100" SH	0.125"
Class 6 Trk	0.020"	0.030"	0.030"	0.040"	0.060"	0.125"

1. Vertical Offset measurement is taken adjacent to weld on top of rail head center. Maximum variance if rail base is not offset, otherwise maintain maximum Base Vertical Offset and grind top of rail surface to a gradual taper as defined in Table 112A.
2. Combined Vertical Offset and Vertical Crown expressed as a tangential deviation 18 inches from center of weld.
3. Horizontal Offset measurement is taken adjacent to weld on side of rail head.
4. Combined Horizontal Offset and Horizontal Kink expressed as a tangential deviation 18 inches from center of weld.
5. Base Horizontal Offset measurement is taken adjacent to weld on side of rail base flange.
6. Maximum Base Vertical Offset will not exceed stated allowed dimension. Any offset on top of rail head must be tapered to eliminate 'notch' effect and impact loading.

New rail - rail alignment shall be done in such a manner that any difference in the width of the rail head will be equally divided on both sides tapered by grinding.
Secondhand Class I, 2 & 3 - rail alignment shall be done in such a manner that the webs will be straight and difference in the width of the rail heads tapered by grinding.
No dip camber (reverse vertical crown) is allowed.
No over-grinding of weld is allowed.
All welds must meet specifications as measured at ambient temperature.

* If rail height difference is greater than 0.125 inch, offset top of rail and grind. Any offset on the top of rail must be tapered to provide a smooth transition. All measurements to be taken with straightedge centered on weld. (See Figures 112B – 112H)

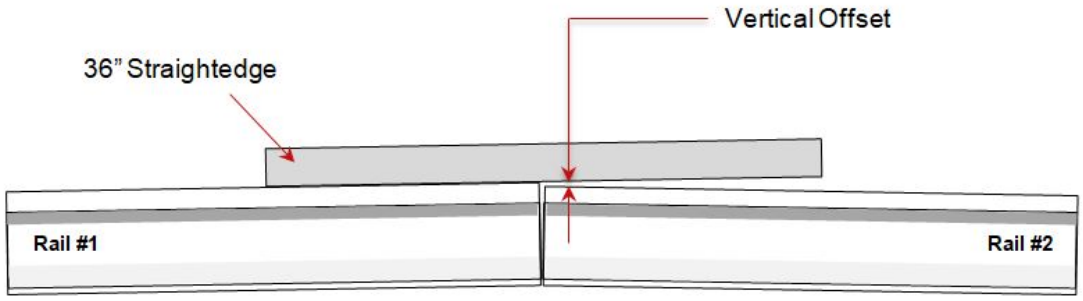

Figure 112B *Vertical Offset*

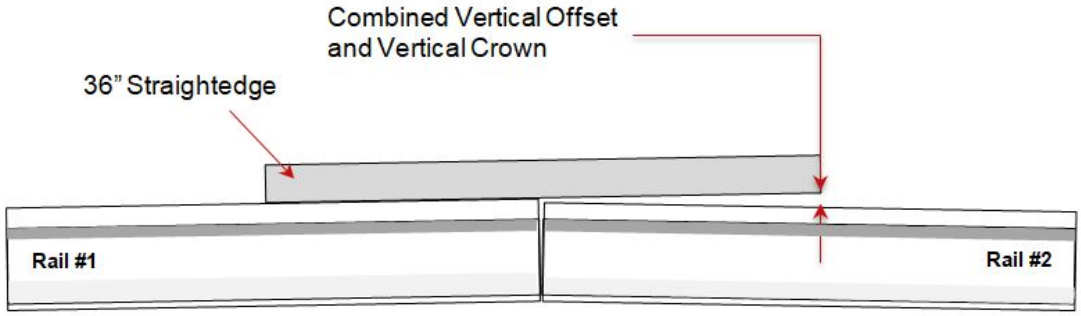

Figure 112C *Combined Vertical Offset and Vertical Crown*

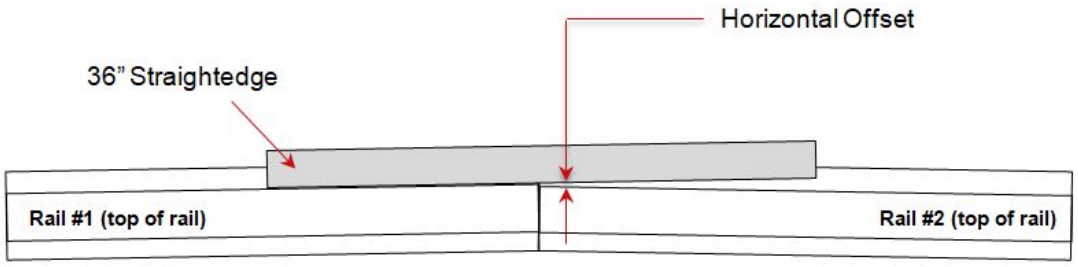

Figure 112D *Horizontal Offset*

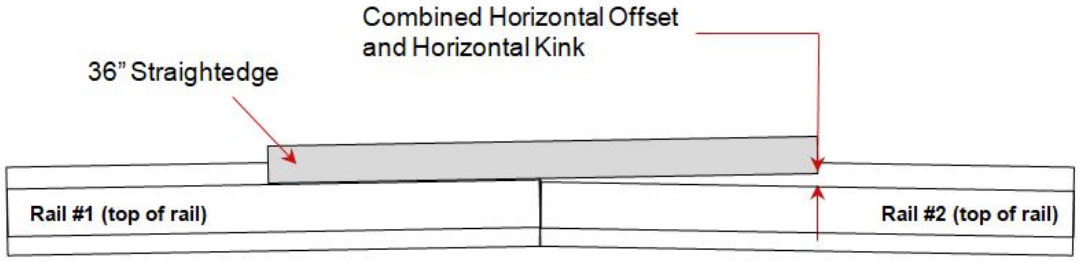

Figure 112E Combined *Horizontal Offset and Horizontal Kink*

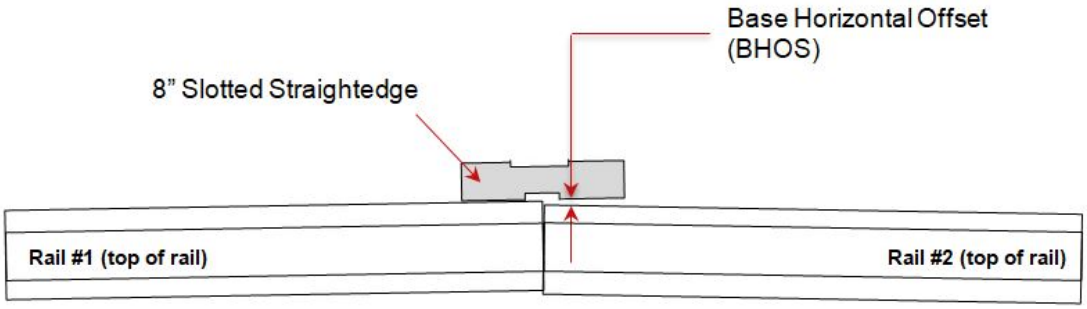

Figure 112F *Base Horizontal Offset*

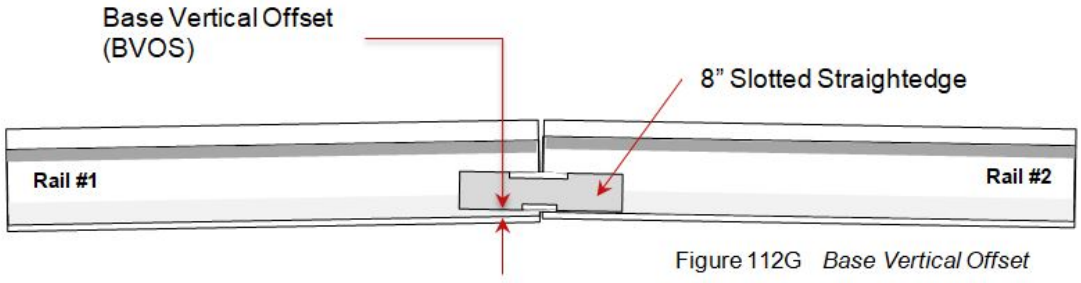

Figure 112G *Base Vertical Offset*

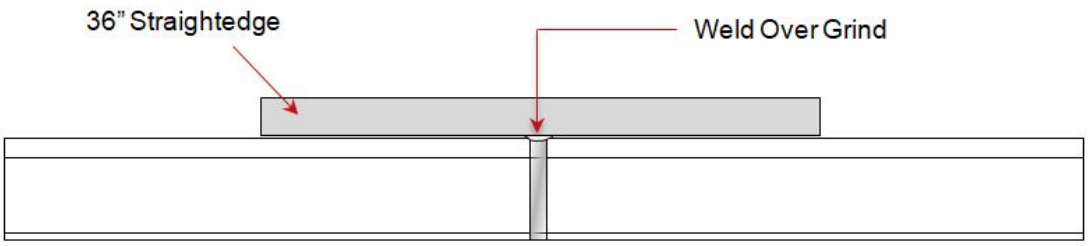

Figure 112H *Weld Surface Over Grind*

Welds must not be over ground. Use the straightedge periodically to check progress.

112.16 - Identify Welds
Change Rule To Read:
All mobile In-track welds must be identified by placing the following information on the outside web of rail near the center axis.

- Date weld was made
- Weld machine number
- Weld number (consecutive numbering starting the first of each year)
- Weld type (HW for head weld, SJ for super jack weld)
- Grinder employee id number

Information will be written using a white metal marker (item number 410-4012). This weld identification is in addition to the required CWR written information when making final adjustment as shown in Figure 112I.

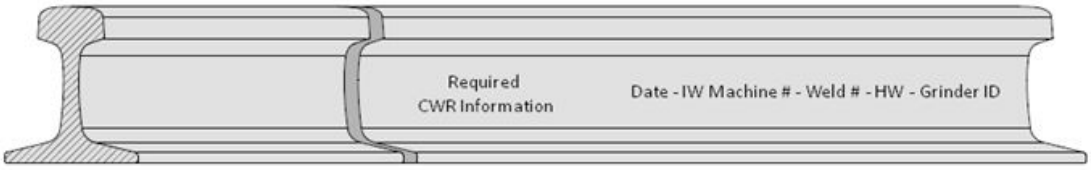

Figure 112I *Weld Identification Placement*

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Item 10-G: Chief Engineer Instruction Bulletins, Chapters 120 to 140

121.3.1 Protection From Trains on the Adjacent Controlled Track
Change title and entire rule to read:
121.3.1 Protection From Trains on the Adjacent Controlled Track

Where track centers are 19 feet or less, on-track safety is required for each adjacent controlled track when a roadway work group with at least one of the roadway workers on the ground is engaged in a common task with on-track, self-propelled

equipment or coupled equipment on an occupied track. When engineering personnel are working on a track with an adjacent controlled track, they must protect themselves against trains passing on the adjacent controlled track as follows. Under all circumstances, positive protection must be obtained before fouling an adjacent controlled track with equipment. Similarly, On-Track Safety must be obtained before personnel foul the adjacent controlled track.

A. Trains passing gang in excess of 25 mph for freight trains and 40 mph for passenger trains

When a train is seen approaching on the adjacent track and the maximum speed on that adjacent controlled track is in excess of 25 mph, all ground personnel and equipment operators not in the protected cab equipment must clear the adjacent controlled track by at least 25 feet, where conditions permit.

Track centers are 19 feet or greater

Operators of protected cab equipment that can foul the adjacent controlled track may remain on the equipment but cannot continue to work. They must secure their equipment against fouling the adjacent controlled track.

Operators of protected cab equipment that cannot foul the adjacent controlled track may continue to work.

Track centers are less than 19 feet

Operators of evaluation cars, production rail grinders, detector cars, rail train unloading equipment, ballast stabilizers and automatic tampers may continue to work.

Operators of all other protected cab equipment may remain on their equipment but cannot continue to work. Equipment that can foul the adjacent controlled track must be secured against fouling.

B. Trains passing gang at 25 mph for freight trains and 40 mph for passenger trains or less

When a train is seen approaching on the adjacent track and the maximum speed on that adjacent controlled track is less than 25 mph, employees will be governed by the following:

Track centers are 19 feet or greater

The gang will continue normal operations except for activities that could foul the adjacent live track. Any activity or equipment that can foul the adjacent track must stop work. Equipment must be secured against fouling.

Track centers are less than 19 feet

a. Ground personnel may continue to work as long as they can keep both feet between the rails or remain on the field side of the track on which they are working. Ground work is prohibited in the areas 25' in front of and 25' behind equipment on the occupied track.

b. Operators of open cab equipment may continue to work so long as their equipment cannot foul the adjacent controlled track and operators are no closer to the adjacent controlled track than the end of the ties on the track on which they are working. When a train is passing the Rail Unloading Machine, RUM crane cannot be in use.

c. Operators of protected cab equipment may continue to work while the train passes if they cannot foul the adjacent controlled track. Operators of protected cab equipment that can foul the adjacent controlled track may remain on their equipment but cannot continue to work. They must secure their equipment against fouling the adjacent controlled track.

122.4.1.1 - Wearing Fall Protection Equipment
Change first sentence to read:

Any person who is working on a bridge, any portion of which is 12 feet or more above the ground or water surface, must wear a full body harness and lanyard if the bridge has at least one side without a handrail, an unprotected edge or gaps or holes large enough to fall through.

122.4.1.2 - Using Fall Protection Equipment
Change last sentence of first paragraph to read:

Employees who work beyond bridge railings, over the sides of the bridge or on a bridge deck within 6 feet of an unprotected edge or gaps or holes large enough to fall through **MUST** use fall protection.

Change second paragraph to read:

When using any type of prying tool (i.e. claw, lining, pinch, timber, crow, etc.), large power tool (small tools such as 3/8 inch drills or sawzalls are not included), or while engaged in pile driving operations and the work area of the bridge is not equipped with handrails on both sides of single track bridges, employees MUST be properly anchored as follows:

1. When the work location is between six and twelve feet in height, use a retractable lanyard or be in fall restraint.
2. When the work location is twelve feet or more in height, complete and utilize the Fall Protection Strategy (Form 24031) to determine the form of personal fall protection.

The above requirement also applies on bridges that have multiple tracks when the work is being performed on an outside track that does not have an adjacent handrail installed.

122.4.1.5 - Going Around Equipment on Bridges
Change part reading:

2. Communication has been established with the equipment operator to enter the work zone whether or not the equipment is occupied.

To read:
2. Communication has been established with the equipment operator to enter the RMM Red Zone whether or not the equipment is occupied.
130.4.3 - Receive Authority to Occupy Main Track or Siding
B. TWC Territory
Change first sentence to read:

Operate the EC-4 and EC-5 car under track warrant Line 7 authority as described in Rule 14.5.

135.1.2 - When To Use Lockout/Tagout
Change rule to read:
Follow these lockout/tagout instructions anytime you perform service, maintenance, adjustments, or repairs on equipment.

- If the power source cannot be removed or disconnected from the equipment while it's being serviced, reference rule 135.4: Maintenance or Repair of Running Equipment.

Note: Lockout/Tagout will be used when Safety Rule 70.7 Protection of Body Parts cannot be followed when performing service, maintenance, adjustments, or repairs on equipment.

135.2.1 - Control Locks and Keys
Change last sentence to read:
To place equipment back in service, reference Rule 135.3.4 Place Equipment Back in Service.

135.3.2 - Lockout/Tagout Procedures
Change rule to read:
A. Lockout/Tagout Procedures During Work
Follow these steps when equipment requires service, maintenance, adjustment or repair during the course of work when On-Track Safety has been established.

1. Notify the employee in charge and the equipment operators on both sides of your equipment that a lockout/tagout is in progress. Let them know where you are located and in which direction you are working, so they will know whether you are behind them or in front of them.
2. Place 1 orange cone in the center of the track at least 15 feet from each end of your equipment.
   Note: Other equipment operators are required to stop when approaching an orange cone and may not proceed until it is removed.
3. Tagout the equipment according to the procedures in 135.3.2D.
4. After completing the maintenance or repair, promptly notify the employee in charge and all affected employees that you are discontinuing the lockout/tagout process.
5. Remove your cones, tags, and locks. When the last lock is removed, remove the scissors lock.

B. Lockout/Tagout Procedures When Equipment Is Tied Up
When equipment is tied up on a track, follow these steps to service, maintain, adjust, or repair equipment:

1. Follow the procedures outlined in Chief Engineer Instruction Bulletin 136.4.2 Inaccessible Track.
2. Before service, maintenance, adjustment, or repair can begin, and before fouling the track the operator or mechanic must notify the employee in charge.
3. Place 1 orange cone in the center of the track at least 15 feet from each end of your equipment.
   EXCEPTION: If other equipment is within 15 feet, place the orange cone as far in advance of your equipment as possible. If it's not possible to place cones in the center of track, place them near the ends of the equipment. Adjust cone placement as conditions change.
4. Tagout the equipment according to the procedures in 135.3.2D.
   Note: If other employees are present, conduct a job briefing to discuss the lockout/tagout process being used.
5. When work is completed, promptly notify the employee in charge and all affected employees that you are discontinuing the lockout/tagout process.
6. Remove your cones, tags, and locks. When the last lock is removed, remove the scissors lock.

C. Tagout Procedures Inside Shops
When performing service, maintenance, adjustments, or repair inside a shop, place the MW roadway machine and work equipment in a safe area and secure it according to the general tagout procedures described in 135.3.2D.

D. General Tagout Procedures

Follow these steps to tagout equipment:

1. Apply the equipment's parking brake.
2. Test the brake to make sure it holds the equipment in position. If the brake does not hold, or if you are not sure it will hold, block the equipment to prevent any unexpected movement.
3. Lower all hydraulic components to the ground or secure them with their locking devices.
4. If components cannot be secured as described in step 3, then mechanically secure all equipment components in a safe condition to prevent uncontrolled movement. (E.g chains, chain hoist, jack stands, blocking, cylinder locks, etc.)
   Note: Components must be mechanically locked or blocked to prevent any movement of the equipment or component, which could endanger workers in the area.
5. Shut down the equipment at the operator's controls.
6. Place the master switch in the OPEN position, apply your 'DO NOT OPERATE' tag, a scissors lock, and personal padlock to the master switch or the battery box / compartment.
   - If the battery box / compartment cannot be locked, disconnect negative battery cable, and apply your 'DO NOT OPERATE' tag, a scissors lock, and personal padlock through the negative terminal connector of the battery cable.
   - If the equipment does not have a master switch, disconnect negative battery cable, and apply your 'DO NOT OPERATE' tag, a scissors lock, and personal padlock through the negative terminal connector of the battery cable.
7. Remove any sources of stored energy, including:
   - Hydraulic pressure from accumulators or built-up line pressures.
   - Air pressure in lines and tank.
   - Pressurized fluid in the cylinders and valves of equipment with elevated components.
   - Electrical energy such as batteries and capacitors.
   - Mechanical sources such as springs under tension.
   - Any other sources that may activate a component.
8. Follow any special manufacturer procedures to ensure that the equipment is safe for performing maintenance or service.
9. Test the security of the tagout. If the equipment cannot be started and the components cannot be energized, you can start maintenance or service safely.
10. A 'DO NOT OPERATE' tag, scissors lock, and personal padlock must remain on equipment until repairs are completed and equipment is safe to operate.
    - When equipment cannot be safely placed back in service, the operator/mechanic must note the machine is unsafe in the operators logbook and Lockout/Tagout must remain in place or a red tag marked 'Unsafe' must be displayed in place of 'DO NOT OPERATE' tag, scissors lock, and personal padlock to prevent operation of unsafe equipment.

135.3.4 - Place Equipment Back in Service

Change Note to read:

Note: If the worker who placed a lock or tag cannot be located, the designated employee in charge can remove it, but *only* after the equipment is thoroughly inspected by a qualified operator or mechanic to ensure it is safe to operate. Ensure all employees stay clear of equipment when testing.

135.4 - Maintenance or Repair of Running Equipment
Change rule to read:
In some cases, equipment needing service, maintenance, adjustments, or repair must be kept running so that troubleshooting and adjustments are possible. If equipment must be kept running, follow the instructions outlined in Chief Engineering Instruction Bulletin 135.3.2 Lockout/Tagout Procedures, then take the following special precautions to ensure safety before energizing the equipment:

1. Place 'Do Not Operate' tag at the operator controls so that no one forgets maintenance or repair of running equipment is in progress.
2. Use a second employee or as many as necessary to guard the controls and warn off would-be operators.
   Note: The employee(s) must remain at their position until the operator or employee who has placed the equipment in lockout/tagout either determines that protection is no longer necessary or assigns another employee to relieve them.
3. Lock or block all components not necessary to the work being performed to prevent accidental activation. Note: If you must activate a component for adjustment, there are two items that must be clearly communicated to each worker in the job briefing. First, that a component is about to be activated and second, exactly what the result of the component activation will be. Take every precaution to ensure that all workers remain clear of the danger area around the active component.
4. Ensure that clothing, tools, or other materials do not get caught in any moving parts.

136.3.1 - Job Briefing for Roadway Work Groups
Under first bullet, change note to read:
Note: When track authorities overlap, the employees in charge of the respective working limits must ensure that working limits within those authorities do not overlap. When multiple work groups occupy the same working limits, only one EIC is permitted and that EIC shall authorize all movements into those working limits. In the event the EIC is no longer accessible to the work group, a new qualified EIC must be assigned.

Change bullet reading:

- Designated work zone around machines

To read:

- Designated RMM Red Zone around machines

136.3.2 - Job Briefing for Lone Workers
Change lone worker contact for track and bridge personnel contained in table to read:
Engineering Craft Manager or Supervisor

Delete bullets under Communication Need reading:

- TAWS

136.4 - On-Track Safety Procedures
Under part reading:
On-Track Safety will be provided for roadway workers by one or more of the following methods:
Delete bullet reading:

- Train Approach Warning System (TAWS)

Change Note to Read :
Note: Use FRA Roadway Work Protection matrix in rule 136.9.2 to determine the proper type of On-Track Safety to use in each operating territory.

136.4.1 - Exclusive Track Occupancy
Under part reading:
If the EIC's track authority is conditional with trains (joint with or do not foul limits ahead of):
Change part B and the paragraph following part B to read:

B. Only after the EIC has verified that the train(s) has passed the work group's location, may the EIC grant permission to an additional work group(s) to use the authority. After permission is received, the lead employee of each additional work group must copy the EIC's track authority exactly as it was transmitted to the EIC. The lead employee of each additional work group must also contact the train and independently verify the train's current location. The lead employee of each additional work group must then document the train's location and time verified on the track authority form.

While a Remote Authority is in effect, a printed or hand written copy is required and readily viewable by the employee in charge that is using the authority to provide on-track safety for a roadway group. In the event that a written or printed copy of the authority cannot be obtained, the EIC shall instruct all roadway workers to stop work and occupy a place of safety and conduct an on-track safety job briefing to determine the safe course of action with the roadway work group. An electronic copy of the Remote Authority must be stored in the devices memory for at least 72 hours.

Change title of part (A) to read:
(A) Track and Time Authority in CTC Territory

Under Part (A) add new part 5 reading:

5. Where multiple routes occur at a control point, (aka, Split OS), roadway workers will confirm their route through the CAD system. If CAD is unavailable, job briefing with the dispatcher must be completed to determine the proper on-track safety to protect your work or movement of equipment through these specific areas.

(B) Track Permit in ABS Territory

Add new Part (H) reading:
(H) Flagman

- Utilize Flagmen for emergency situations and ABS.
- Refer to M/W Rule 42.15 – Emergency Flag Protection on Controlled Track.

136.4.2 - Inaccessible Track
Change rule to read:

Inaccessible track is a method of establishing working limits on non-controlled tracks by making the track physically inaccessible to trains, engines, railroad cars and on-track equipment. Non-controlled track consists of:

- Yard tracks.
- Industrial leads.
- Non-controlled sidings.

In areas where Remote Control Operations may be in effect, working limits may not be established by making the track inaccessible until the Employee-In-Charge:

1. Contacts the yardmaster or control operator to determine if Remote Control Operators are working in the area and, if so, how many.
   AND
2. Conducts a job briefing with each Remote Control Operator to discuss method and location of inaccessible track.

Inaccessible track can also be used to establish working limits on adjacent non-controlled tracks when it is necessary to foul adjacent tracks.

The EIC or lone worker establishes working limits using inaccessible track by one or more of the following methods:

- Line a switch or derail to prevent access to the working limits.
  - Apply a tag to the switch or derail in use.
  - Effectively secure the switch or derail by one or more of the following methods:
    - Place a M/W or personal lock on the switch or derail to prevent train service employees from unlocking and lining the switch/derail.
    - Properly secure a switch point clamp.
    - Use a spike driven into the switch tie against the switch point firmly enough that it cannot be removed without proper tools.
- Ask the dispatcher / control operator to line a remotely controlled switch to prevent access to the working limits. The dispatcher / control operator must:
  - Apply a locking or blocking device to the control of the switch.
  - Notify the roadway worker that protection has been established.
  - Not remove the locking or blocking device until the roadway worker who requested the protection gives permission to do so.
- Follow Rule 7.13 (supplement) to protect roadway workers in bowl tracks and other non-controlled tracks with remotely controlled switches.
- Place a flagman to hold all trains and equipment clear of the working limits at each entry point.
  - When a flagman is used to prevent movements of trains and equipment at an entry point to the working limits:
  - The flagman must be trained and qualified for the duties of a flagman.
  - The EIC must announce on the applicable radio channel the establishment of working limits via flagman protection, if possible.

- The flagman must maintain a position at each point of entry to the working limits and not be assigned any other duties.
- The flagman must not leave his/her position until all roadway workers are clear of the track and only under the authority of the EIC.
- The flagman must be equipped with a red flag and walk towards the approaching train or equipment waving the flag signaling to stop. The flagman should not place themselves in a position to be struck by oncoming trains or equipment.
- A flagman can also establish protection by lining a switch or derail to prevent entry into the working limits. The flagman must remain at the location of the switch or derail while performing this type of flagman protection.

Note: This provision cannot be used on tracks where trains can operate above restricted speed or in locations where free rolling equipment moves are expected or common practice (i.e. where humping or kicking cars activities are in affect).

- Place portable derail(s) with red flag(s).
  - As first means of making a track inaccessible, EICs must tag and either lock out, spike, or clamp a switch to reduce the number of derails placed.
  - When track is not tagged and either locked out, spiked, or clamped:
    - Derail(s) and red flag(s) must be placed 150 feet in advance, if possible, from the working limits to prevent movement into the limits.
    - Place additional red flag(s) 150 feet, if possible, from all derail(s) and red flag(s) to provide advance warning to movement into working limits.
  - At night, if an entire track is not completely locked out and inaccessible to equipment movement, (i.e. all switches into track are not tagged and either locked out, spiked, or clamped), a red light will be displayed in between the gauge of the track at the derail location.
  - Lock, or otherwise effectively secure the derail so that it cannot be removed.
  - Attach a tag to the derail.
  - Complete Switch and Derail Awareness Checklist.
- Establish working limits on track(s) that provides the only access to the track(s) to be made inaccessible.
  or
- Establish discontinuity in the rail to prevent movement into the working limits. Place red flags 150 feet in advance of the working limits.

Note: Use derails (with red flags), switches lined against or discontinuity in the rail to protect against the possibility of standing cars rolling into your working limits.

Application: When locking a switch or derail, a M/W or personal lock may be used.

On-track equipment engaged in weed spraying or snow removal may proceed under the following conditions:

- All on-track movements in the affected area are informed of such operations.
- All on-track movements shall be operated in accordance with M/W 40.6.28.

- A means for communication between the on-track equipment and other on-track equipment movements is provided; and Remotely Controlled hump yard facility operations are not in effect and kicking of cars is prohibited unless agreed to by the EIC.
- Roadway workers engaged in such snow removal or weed spraying operations to this section shall retain an absolute right to use the provisions of Inaccessible Track.
- Roadway workers assigned to work with this equipment may line switches (or derails operated via a switch stand) for the machine's movement but shall not engage in any roadway work activity unless protected by another form of on-track safety.
- Equipment must have:
    - An operative 360-degree intermittent warning light or beacon, work lights, if the machine is operated on-half hour after sunset and one-half hour before sunrise or in dark areas such as tunnels, unless equivalent lighting is otherwise provided.
    - An illumination device, such as a headlight, capable of illuminating obstructions on the track ahead in the direction of travel for 300 feet under normal weather and atmospheric conditions.
    - A brake light activated by the application of the machine braking system and designed to be visible for 300 feet under normal weather and atmospheric conditions.
    - A rearward viewing device, such as a rearview mirror.

  Note: If any of the devices listed above become defective, the 7/7/30 day requirement in the RMM policy does not apply. The machine must not be operated until:

    - The track is made inaccessible.
      or
    - The repairs have been made.

136.4.3 - Individual Train Detection
Change bullet reading:

- No power-operated tools or machines are in use within hearing range.

To read:

- No power-operated tools or machines are in use within hearing range.
    - Individual train detection shall not be used to provide on-track safety for a lone worker using a roadway maintenance machine, equipment, or material that cannot be readily removed by hand.

Change bullet reading:

- The lone worker has completed a written Statement of On-Track Safety in their Lone Worker Job Briefing Book (Form 24327). The column entitled 'Sight Distance Required' is the distance a train will travel in 15 seconds at the listed speed.

To read:

- The lone worker has completed a written Statement of On-Track Safety in their Lone Worker Job Briefing Book (Form 24327). The lone worker must produce the completed Statement of On-Track Safety upon request. The completed form will be kept for a minimum of 30 calendar days. The column entitled 'Sight Distance Required' is the distance a train will travel in 15 seconds at the listed speed.

Delete last sentence reading:
When using ITD, the lone worker must produce the completed Statement of On-Track Safety upon request.

136.4.4 - Train Approach Warning

Change rule to read:
When roadway workers foul a track outside working limits, lookouts can provide On-Track Safety using Train Approach Warning (TAW). Use TAW to provide On-Track Safety only if all the following conditions are met:

- Each lookout is trained, qualified, designated, and equipped to provide train approach warning.
- A lookout can give a train approach warning in time to allow each roadway worker and/or off-track equipment to occupy a pre-determined place of safety at least 15 seconds before the arrival of the train. The place of safety must not be on a track unless working limits have been established on that track. Do not use a temporary speed restriction (Form A track bulletin) to determine sight distance. Use the maximum timetable speed including permanent speed restrictions to determine sight distance.
- Each roadway worker and/or off-track equipment is in a position to receive a train approach warning.
- Lookout(s) can devote their entire attention to detecting approaching trains and warning the roadway workers.
    - Lookouts may not be assigned or perform other duties while functioning as a lookout.
    - Lookouts must remain at their lookout position until the EIC either determines that protection is no longer necessary or assigns another lookout to relieve them.
- TAW must not be used to protect track that is unsafe for train movement.
- TAW can be used to protect off-track equipment in areas where trains are required to move at restricted speed under the following conditions:
    - Track speed does not exceed restricted speed
    - Traveling off-track equipment into established working limits
    - The lookout's method of communication must be an air horn or whistle
    - The lookout must follow all the applicable procedures outlined in this rule
    - Not on tracks where cars are kicked, humped or in an active remote-control zone

  Note: The EIC may provide TAW by acting as the lookout as long as the EIC is not performing other duties.

- The lookout's method of communicating a train approach warning is distinctive and can be clearly understood regardless of noise or work distraction. The method can consist of:
    - Sounding a whistle or air horn.
    - Verbally communicating. Do not use radios as the sole means of communication to provide TAW.
      or
    - Touching the roadway worker(s) is only allowed when a group is working in close proximity to the lookout.

- The lookout's ability to see approaching trains and equipment is not impaired by:
    - Lights
    - Inclement weather (rain, snow, fog, etc.)

    - Passing trains
      or
    - Other physical conditions
- Lookout is wearing the highly visible work wear designated to identify roadway workers performing the duties of a lookout.
- The lookout has completed a Lookout Job Briefing form (Form 24359). The lookout will produce the completed form upon request. Completed forms will be kept for a minimum of 30 calendar days.
- The lookout or EIC is monitoring transmissions from train movements in the vicinity, either through an external speaker or handie-talkie. Where conditions exist that impede the ability to hear an external speaker, the handie-talkie must be used.
- TAW will not be used when light is insufficient to detect approaching equipment at the prescribed sight distance. Do not rely on the headlight of a locomotive as visual warning. Light must be sufficient to detect approaching equipment that is not equipped with lights.

Controlled Track

- When alerted by the lookout of the approach of a train on any main track or controlled siding, all roadway workers will move to the predetermined place of safety.
    - Where track centers are 19 feet or greater and the train is passing on an adjacent controlled track, work may not resume until the head end passes the work location and a job briefing has been conducted by the EIC or lookout to ensure sight distances have not been reduced by the presence of the train.
    - Where track centers are less than 19 feet and the train is passing on an adjacent controlled track, work may not resume until the train completely passes the work location or stops. If the train stops on the adjacent controlled track near the work location, work may resume only after a job briefing has been conducted by the EIC or lookout to ensure sight distances have not been reduced by the presence of the train.
    - When the train is moving on a track beyond an controlled adjacent track, work may resume after the head end passes the work location and a job briefing has been conducted by the EIC or lookout to ensure that sight distances have not been reduced by the presence of the train.

Non-Controlled Track

- When trains (including cars, locomotives or on-track equipment) are approaching roadway workers and/or off-track equipment, they will move to the predetermined place of safety until it is verified that the train movement will not enter the work location.
- **Movement on an adjacent track:** If the train is moving on an adjacent track, the roadway workers may not resume work until the train completely passes the work location or stops. If the train stops on an adjacent track near the work location, they may resume work foul of the track only after the EIC or Lookout re-assesses the sight distances.
- **Movement on a track beyond the adjacent track**: If a train is moving on a track beyond the adjacent track and cannot enter the work location, the roadway workers and/or off-track equipment may resume work after the EIC or Lookout re-assesses the sight distances to ensure they have not been reduced by the presence of the equipment.
- At least one roadway worker (not the lookout) is designated to inspect the passing trains for defects per GCOR rule 6.29.1 Inspecting Passing Trains.

136.4.8:Automatic or Symbol (Z) Manual Interlockings
Change Note to read:
Note: When foul time, track permit, or track and time is granted by a UP train dispatcher within 'Z' manual interlocking limits, the protection applies only on the UP route within the interlocking. M/W key release must be operated to provide protection on conflicting routes.

Rule 136.4.9: Deleted the Rule.
136.5 - On-Track Safety on Adjacent Tracks
As contained in table for protection of employees or equipment fouling adjacent main tracks in second row for Controlled Track Type;
Delete bullet under Method of Protection reading:

- TAWS

136.7.3 - Working Around Roadway Maintenance Machines (RMM)
Change title and rule to read:

A. Roadway Workers
Roadway Workers must not enter an RMM Red Zone without first communicating with the operator to establish safe work procedures.

A RMM Red Zone includes:

- The area specified and understood by all roadway workers in a job briefing. Visual aids may be used to help workgroups define a Red Zone.
- Anywhere a person can be struck/crushed by a suspended load, roadway machine, or other object.
- Near or in the line of fire of a cable, rope, chain, or sling under tension in case of breakage, or one that might be tightened at any moment.
- For RMM on track in excess of 7,500 lbs, Red Zone includes, at minimum, the area foul of the track that extends from a point 15ft in front of the RMM to a point 15 ft behind the RMM. Some RMM's may require increased Red Zone distances.
- For RMM's equipped with a crane, boom or other device capable of lifting or moving a load, the red zone includes the working radius of the RMM including extendable attachments and material being handled.

If a roadway worker must enter a RMM Red Zone, the following must take place:

1. The roadway worker must notify the RMM operator or groundman verbally (e.g. radio or face to face) or with pre-determined hand signals to stop all movements before entering the Red Zone.
2. The RMM operator or groundman must stop all movements and acknowledge all movements are stopped to the roadway worker either verbally or with pre-determined hand signals before the roadway worker may enter the Red Zone.
3. The RMM operator must ensure equipment will not move while roadway worker(s) are in the Red Zone. If RMM is equipped with a safety device that disengages power to operating mechanisms, it must be utilized.
4. The roadway worker or groundman must verify all roadway workers are clear of the Red Zone and communicate that to the RMM operator either verbally or with pre-determined hand signals.

If work requires RMM to be operated while a Roadway Worker(s) are within the RMM Red Zone:

- A single designated groundman must be established.
- The groundman is responsible for safely directing all movements of the RMM.
- The operator will only take signals given by the designated groundman unless the signal is a stop signal.
- If the method of communication is lost/interrupted or not clearly understood between the RMM operator and the single designated groundman, RMM operation and movements must immediately stop.

B. RMM Operators
RMM operators must comply with the following:

- If RMM is equipped with a horn or back-up alarm, sound the horn (3 short blasts) or ensure the alarm is sounding before making a reverse move.
- When on-track equipment is required to move a distance greater than the Red Zone distance specified in the job briefing, the operator must ensure the way route is clear. Under no circumstance may on-track equipment move more than 15 feet without ensuring the way route is clear.
- Do not approach closer than 15 feet to any roadway worker fouling the track with on-track equipment without first communicating with the roadway worker.
- Do not place any roadway worker in the Red Zone of an RMM without first communicating with the roadway worker.

136.9.1 - Written Statement of On-Track Safety
Change rule to read:
See the Statement of On-Track Safety (Form 24019)

Statement of On-Track Safety

C.E.B. 136.9.1

A lone worker using INDIVIDUAL TRAIN DETECTION must complete this form **prior** to fouling a track.

Name: _____ Date:_____
Subdivision/Branch:_____
Work Location:_____
Job Briefing Conducted with:_____
Time of Job Briefing:_____ Radio Channel:_____
Time Limits:_____

You must allow additional distance and time for clearing the track.

Sight Distance Reference (feet) for Various Clearing Times				
Authorized Track Speed	Distance Train Travels in 15 Seconds	Additional 10 Seconds Clearing Time	Additional 15 Seconds Clearing Time	Additional 20 Seconds Clearing Time
10	220	367	440	513
20	440	733	880	1027
25	550	917	1100	1283
30	660	1100	1320	1540

35	770	1283	1540	1797
40	880	1467	1760	2053
45	990	1650	1980	2310
50	1100	1833	2200	2567
55	1210	2017	2420	2823
60	1320	2200	2640	3080
65	1430	2383	2860	3337
70	1540	2567	3080	3593
75	1650	2750	3300	3850
80	1760	2933	3520	4107
Note: Shaded column shown for reference only. Use the 10 second, 15 second, or 20 second columns to determine required sight distance for Individual Train Detection or Train Approach Warning.				

Note: When the maximum authorized speed is not shown on the form, use the next higher speed.

This form must be in the employee's possession while work is being performed.

Always Look for Trains

136.9.2 - FRA Roadway Worker Protection Matrix

Change to read:

FRA Roadway Worker Protection Matrix (CEB 136.9.2)

	Type of Work	Controlled Track								Non-controlled Track
		CTC or CTC-ATC		TWC or ABS-TWC	DTC	ABS or ATC	Manual Interlocking	Automatic Interlocking	Yard Limits (Main Track)	(Yard, Industry & Sidings)
		Multiple Track	Single Track							
Track Unsafe	Planned Work	• Track & Time • Form B • Foul Time • Track Out Of Serv • Flag Protection • Train Coordination	• Track & Time • Form B • Foul Time • Track Out Of Serv • Flag Protection • Train Coordination	• Track Warrant • Form B • Track Out Of Serv • Flag Protection • Train Coordination	• Work & Time • Form B • Track Out Of Serv • Flag Protection • Train Coordination	• Form B • Track Permit • Track Out Of Serv • Flag Protection • Train Coordination	• Track & Time • Form B • Foul Time • Track Permit • Track Out Of Serv • Flag Protection • Train Coordination	• CEB 136.4.8 • Form B▽ • Flag Protection • Train Coordination	• Form B • Track & Time • Track Permit • Foul Time • Track Warrant* • Track Out Of Serv • Flag Protection • Train Coordination • Form C*	• Inaccessible Track
	Unplanned Work	• Track & Time • Foul Time • Track Out Of Serv • Flag Protection • Train Coordination	• Track & Time • Foul Time • Track Out Of Serv • Flag Protection • Train Coordination	• Track Warrant • Track Out Of Serv • Flag Protection • Train Coordination	• Work & Time • Track Out Of Servi • Flag Protection • Train Coordination	• Track Permit • Foul Time • Track Out Of Serv • Flag Protection • Train Coordination	• Foul Time • Flag Protection • Train Coordination	• CEB 136.4.8 • Flag Protection • Train Coordination	• Track & Time • Track Warrant* • Track Permit • Foul Time • Track Out Of Serv • Flag Protection • Train Coordination • Form C*	• Inaccessible Track
Track Safe	Roadway Work Group	• Lookout • Track & Time • Foul Time • Form B • Flag Protection • Train Coordination	• Lookout • Track & Time • Foul Time • Form B • Flag Protection • Train Coordination	• Lookout • Track Warrant • Form B • Flag Protection • Train Coordination	• Lookout • Work & Time • Form B • Flag Protection • Train Coordination	• Lookout • Track Permit • Foul Time • Form B • Flag Protection • Train Coordination	• Lookout • Foul Time • Form B▽ • Flag Protection • Train Coordination	• CEB 136.4.8 • Lookout • Form B▽ • Flag Protection • Train Coordination	• Lookout • Track & Time • Form B • Track Permit • Foul Time • Track Warrant* • Track Out Of Serv • Flag Protection • Train Coordination • Form C*	• Lookout • Inaccessible Track
	Lone Worker	• ITD • Track & Time • Foul Time • Flag Protection • Train Coordination	• ITD • Track & Time • Foul Time • Flag Protection • Train Coordination	• ITD • Track Warrant • Flag Protection • Train Coordination	• ITD • Work & Time • Flag Protection • Train Coordination	• ITD • Track Permit • Foul Time • Form B • Flag Protection • Train Coordination	• Foul Time • Flag Protection • Train Coordination	• CEB 136.4.8 • ITD • Flag Protection • Train Coordination	• ITD • Track & Time • Track Warrant* • Track Permit • Foul Time • Flag Protection • Train Coordination • Form C*	• ITD • Inaccessible Track

Notes:

- Types of On-Track Safety are listed in priority order.
- Use of shunts, where required or permitted, is a secondary means of protecting against trains and cannot be used as the sole means of On-Track Safety.

▽When using a Form B Track Bulletin for OTS at interlockings, Form B must cover all movements; otherwise, protection must be provided on the conflicting route(s).

*Track warrants may be obtained in non-signalized yard limits but, in addition, red flags must be displayed to establish working limits.

*For purposes of On-Track Safety, the main track in yard limits is considered non-controlled track when the track speed is restricted speed or a Form C Track Bulletin is in effect requiring trains to move at restricted speed.

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(07/24/23)

136.10 - Glossary of Terms

Change:

Employee in Charge

To read:

Employee In Charge (EIC)

An employee who is qualified to provide On-Track Safety for one or more roadway work groups. This employee must be engaged in the task associated with the On-Track Safety they are providing.

Delete:

Roadway Machine

A machine used on or near the track for maintenance, repair, construction, or inspection of track, bridges, roadway, signal, communications, or electric traction systems. Roadway machines may be on-track or off-track or both. The machines include hy-rails, motor cars, roadway machines, work equipment, and other forms of track cars.

And:

Work Zone

The area around a roadway machine that must not be entered without first communicating with the operator to establish safe work procedures.

Add the following:

Control Point

The location of absolute signals controlled by a control operator.

Effective Securing Device

A vandal and tamper resistant lock, keyed for application and removal only by the roadway worker(s) for whom the protection is provided shall be used on manually operated switches, switch point clamps, or portable derails as a means to provide protection. Regardless of the type of securing device, the throwing handle or hasp of the switch or derail shall be uniquely tagged. If there is no throwing handle, the securing device shall be tagged.

Employee

An individual who is engaged in or compensated by a railroad or by a contractor to a railroad to perform any of the duties defined as a Roadway Worker.

Maximum Authorized Speed

The highest speed permitted for the movement of trains permanently established by timetable/special instructions, general order, or track bulletin.

On-Track Safety Manual

The entire set of on-track safety rules and instructions maintained together in one manual designated to prevent roadway workers from being struck by trains or other on-track equipment. These instructions include operating rules and other procedures concerning on-track safety protection and on-track safety measures.

Qualified

A status attained by an employee who has successfully completed any required, training for, has demonstrated proficiency in, and has been authorized to perform the duties of a particular position or function.

Roadway Maintenance Machine (RMM)

Stationary or non-stationary self-propelled equipment that is used on or near railroad tracks for maintenance, repair, construction, or the inspections of tracks, bridges, roadways, and signals. This includes vehicles and equipment that may work on/off track.

Train Coordination

Working limits established by a roadway worker through the use of a train's authority on a main track or other track where specific authority is required from a control operator or train dispatcher.

Watchman/Lookout

An employee who has been trained and qualified to provide warning to roadway workers of approaching trains or on-track equipment. Watchman/lookouts shall be properly equipped to provide visual and auditory warning such as a whistle or air horn. A watchman/lookout's sole duty is to look out for approaching trains/on-track equipment and provide at least fifteen seconds advance warning to employees before arrival of trains/on-track equipment.

137.3.1 - Flagging Highway Vehicles
A. EMERGENCY RESPONSE TO A GRADE CROSSING ACTIVATION
Change second bullet to read:

- Ensure that a crossing order has been issued to trains for the crossing (XH).

137.3.1b - Crossing Warning Devices Not Disabled
Change Rule To Read:
If crossing warning devices are not disabled, every attempt must be made to flag all affected crossings. If there are not enough employees to properly flag the crossing and complete the emergency repair, comply with the following:

1. Contact the dispatcher directly and request an XH order be placed on all affected crossings.
2. Contact SOC to have a signal representative dispatched to disable the crossing.

137.3.4 - Employees Driving Around Crossing Gates
A. EMERGENCY RESPONSE TO A GRADE CROSSING ACTIVATION
Change second bullet in part 2 to read:

- Ensure that a crossing order has been issued to trains for the crossing (XH).

Rule 138.3.2: Critical Lift
Change Parts 2 and 3 to read:

2. Working around power lines or near operating equipment (also see UP Safety Rule 78.8).
3. When 2 or more pieces of equipment are working together (also see UP CEB 138.3.8).

Add part 5 reading:
5. When lifting personnel in a basket (also see UP CEB 122.7).

138.3.13: Observing Special Operating Conditions

Change rule reference in part 2 to read:
UPRR Rule 77.7.

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Item 10-H.: Hazardous Materials Instructions

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Item 10-I: Union Pacific Railroad Policies

Links to view Union Pacific Policies:

"Employees are expected to work safely, honestly, and to treat others with respect. Employees are expected to be familiar with and comply with Company policy including those listed below. Employees who are unsure of the application of any Company

policy to their work, must ask their supervisor for an explanation."

The How Matters Code of Conduct:
http://home.www.uprr.com/emp/exec/conduct/index.shtml

Drugs and Alcohol Policy:
http://home.www.uprr.com/emp/operating/op_prac/dap/index.shtml

Blood-Borne Pathogens Policy:
http://home.www.uprr.com/emp/operating/she/policy/iv-regs/k_pathogens.shtml

Smoking Policy:
https://home.www.uprr.com/e/hr/agreement-union-policies/smoking/index.htm

Medical Rules:
https://leaves.www.uprr.com/medical/medical_rules/index.shtml

Policy to Address Violence & Abusive Behavior in the Workplace:
https://home.www.uprr.com/e/exec/conduct/violenceinworkplace/index.htm

Equal Employment Opportunity/Affirmative Action and Related Policy Directives
http://home.www.uprr.com/emp/ec/policy/eeo_uprr.shtml

Information Governance Policy:
http://home.www.uprr.com/e/exec/conduct/info-gov-policy/index.htm

Unauthorized Employee Recording in the Workplace:
https://home.www.uprr.com/e/hr/na/unauthorized-recording/index.htm

Family & Medical Leave Policy, including Active Duty Family Military Leave & Military Caregiver Leave, for Employees
https://home.www.uprr.com/e/hr/benefits/family-medical-leave-act/agreement-union/index.htm

Engineering Fire Prevention Policy
https://home.www.uprr.com/cs/groups/public/@uprr/@environment/@safety/documents/employees_documents/pdf_e_safety_srm_fire_prot.pdf

Mechanical Fire Prevention Policy
https://home.www.uprr.com/emp/mechanical/car/manuals/Mech%20FPP_2023.pdf

Transportation Fire Prevention Policy
https://home.www.uprr.com/cs/groups/public/@uprr/@environment/@safety/documents/employees_documents/cdf_e_srm_transfire.pdf

Rule Updated Date

November 19, 2024

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Item 10-J: Commuter Train Operations

Geneva, Kenosha, Harvard and McHenry Subdivisions.

I Commuter Operations Documents and Requirements

All employees affected must have a copy of the current Commuter Operations Train Schedules. Freight trains and engines must attempt to clear the time of scheduled passenger trains to avoid delay. Employees in passenger train service, including engineers, must have a copy of the current METRA Operations Profile.

II Instructions Governing Movements Between the Ogilvie Transportation Center (OTC) and Halsted and Erie

1. **Ogilvie Transportation Center (OTC)**
   - **a.** All movements into the OTC must not exceed 5 MPH for the last 250 feet of each track within the train shed. Movement must be controlled so stop will be made by service application of the brakes and short of the white line painted on platforms 10 feet in advance of bumping posts.
   - **b.** When the engineer is the only crew member in the control cab, the conductor or other crew member must communicate with the engineer by radio before passing Bridge A. The communication must include the location, track operating on, and signal aspect at Bridge A. If communication is not established, the conductor or other crew member must take appropriate action to stop the train.
   - **c.** When movement is made over Lake Street Interlocking, when practicable, movement must be controlled by the engineer from the lead unit or cab car in the direction of movement.
   - **d.** Rule 7.9 Switching Passenger or Occupied Outfit Cars: When couplings are made within the OTC, stop not less than 20 feet from the cars. Then complete coupling on signal from employee on the ground.

2. **Lake Street Interlocking:**
   - **a.** The first signal governing movements from each of the train shed tracks is identified by two white stars located directly above the signal light. In addition, these signals are equipped with a single white star which is in view when looking back at the signal (train or engine beyond the signal). When the indication displayed by the first signal cannot be observed due to train or engine extending beyond this signal, engineer or trainman will be governed by the single white star. When the single white star is illuminated:
     1. The signal displays a proceed indication.
     2. The route is lined to the next signal.
   - **b.** Movement from the mail or fuel pockets must not be made without a proceed indication and permission from Lake Street control operator.
   - **c.** Locomotives exceeding four axles must utilize crossovers west of Lake Street Tower to enter the OTC authorized tracks as specified for business cars.

3. **Movements between Halsted or Erie and OTC.**
   - **a** Engine bell must be rung continuously.
   - **b** Headlight must be dim.
   - **c** Ditch lights and oscillating headlight must be off.

4. **Running Brake Test**

All trains and yard movements entering the OTC must make a running air brake test approaching Halsted or Erie to know that the brakes on the train are functioning properly. Trainmen handling back-up movements into the OTC must make a running brake test through use of the valve on back-up hose or its equivalent, approaching Halsted or Erie, to know that the brakes are functioning properly. All trains and yard movements departing OTC must make a running brake test to know that the brakes on the train are functioning properly.

5. **Cars Exceeding 16 Feet**
   Cars exceeding a height 16'0" above top of rail must not be operated on any track in the OTC.

III Additional Rules and Instructions

. Passenger Train: A train made up of equipment designed to transport passengers.

Letter S: The letter S in the schedule column in Commuter Operations Train Schedules indicates a regular stop.

Canceling Regular Stops: When a passenger train is directed to cancel regular stops and will pass through stations where people may be crossing from one platform to another, train will not exceed 30 MPH and must whistle frequently approaching and passing these stations.

Operating on Other Than Normal Tracks: When movements are made on tracks other than those normally used, the engineer must notify commuter control sufficiently in advance to permit passengers to change platforms. The train must enter the station at a speed to allow all passengers to cross over before blocking crosswalk.

Operation of Doors and Handling of Passengers at Station Platforms:

The Conductor will designate one member from the train crew who will operate the doors at each station.

Exterior doors must not be opened until the train has come to a full stop at a station platform. Trainmen must position themselves evenly spaced (when possible) on the platform to ascertain that all doors have opened for those passengers entraining/detraining and to provide assistance. Conductors, Assistant Conductors, and Collectors are required to be on all station platforms at every stop except if the car they are working is not on the platform.

Trainmen assigned to work the ADA car should maximize their presence in that car and must be aware of the passengers special needs. Special attention should also be given to coaches carrying the elderly and families with small children.

When two or more cars are open, trainmen must not work from the same car, EXCEPT as required in the performance of duty.

Doors located at other than a platform or other suitable surface such as street crossing will not be used. Announcements must be made in advance, directing passengers to doors that can be opened properly.

Precautions must be taken to see that doors improperly spotted remain closed. If an unusual stop is made at a station which results in car doors not being spotted at a platform, the engineer will sound one long signal or the override circuit or make a PA announcement. The trainmen responsible for the doors must consider this an emergency signal and only open the doors which are properly spotted.

Trains are not to depart stations until the following has occurred:

- Trainman responsible for working the doors receives visual signals from all other train crew members that the train is ready to depart.
- Trainman will then close all doors except his own.
- Trainmen will then make a final check of all doors in both directions from the best possible vantage point to ensure all doors except his own are closed.
- Once it is verified that all other doors are closed except his own, the trainman will then close his door.
- After the door light indication is illuminated in the engineer's compartment signifying that all doors are closed, the train can depart the station. When conditions permit, the engineer should observe the platform area, utilizing his rear view mirror or camera monitor, looking for any unsafe conditions as the train begins to depart the station.
  - If, after the door closed light has illuminated and:
    - train begins to pull away from the station, the engineer notices that the door closed light has gone out; a normal brake application will be made to bring the train to a stop. Trainmen will then ascertain the cause of the open door indication and correct the problem, if possible, before resuming operation.
    - train is operating at speed and the engineer notices that the door closed light has gone out; the engineer will communicate with the train crew and ascertain the cause of the open door indication.

If there is a failure of the door light indication in the engineers compartment, the train may proceed under the authorization of the Conductor, only after a full understanding on an alternative method for assuring the doors are closed has been reached by all crew members through a supplemental job briefing. Please note, system failures must be reported on the Passenger Car Inspection Report.

At stations where track curvature or other circumstances restrict sight distances making it impossible for the trainman responsible for door operation to observe all cars in the train while making the final check the following should occur prior to the train departing the station:

- All trainmen will bleed off the door of the car they are operating from.
- All trainmen will position themselves on the platform along the length of the train in such a way that all cars can be observed.
- All doors will be closed except those doors where a trainman is positioned.
- After each trainman makes a final check of the cars under their observation, all crew members will exchange a second hand signal prior to boarding and closing their own doors.
- After the door light indication is illuminated in the engineer's compartment signifying that all doors are closed, the train can depart the station. When conditions permit, the engineer should observe the platform

area, utilizing their rear view mirror or camera monitor, looking for any unsafe conditions as the train begins to depart the station.

- o If, after the door closed light has illuminated and:
  - train begins to pull away from the station, the engineer notices that the door closed light has gone out; a normal brake application will be made to bring the train to a stop. Trainmen will then ascertain the cause of the open door indication and correct the problem, if possible, before resuming operation.
  - train is operating at speed and the engineer notices that the door closed light has gone out; the engineer will communicate with the train crew and ascertain the cause of the open door indication.

Door control panel on all cars must be deactivated in the closed (locked out) position except when needed for immediate use by a train crew member. Once all passengers have been loaded/unloaded the Control Panel must be locked prior to leaving the vestibule. Coach keys are to be removed after they are used and are not to be left in the lock at any time.

Approaching Stations: When approaching stations;

1. Engine bell must be rung one-fourth mile in advance of stations where passengers are received or discharged and must continue until engine has passed platform. In the event of bell failure, whistle must be sounded when approaching stations.
2. Headlight must be on bright and ditch lights and oscillating headlight on, except when approaching OTC.
3. A street or road crossing adjoining or immediately adjacent to the station platform will be considered a part of the platform or platform area.

California Avenue Coach Yard

Locomotives exceeding four axles are prohibited from operating within Cal Ave between Sacramento and Western Avenues, unless special permission is received from the Cal Ave Yardmaster or a Commuter Operations Manager

1.7 Altercations:

Application: Employees must not enter into altercations with each other, passengers and/or the general public.

1.47 Duties of Crew Members

Application:

Calling Attention to Restrictions:

Conductors of passenger trains must remind the engineer of permanent restrictions by use of the radio or intercom and receive acknowledgement between the following locations:

Geneva Sub:
MP 30.0 and MP 30.5.

Harvard Sub:
MP 7.7 and MP 7.8.
MP 50.4 and MP 52.0.

Kenosha Sub:

MP 11.8 and MP 12.0;
MP 2.7 and MP 3.5;
MP 3.5 and MP 3.9.

McHenry Sub:
MP 65.4 and MP 69.2.

If the radio and the intercom fail, the communication signal buzzer will be used by 2 sounds of the communication signal buzzer. If communication is made by use of the buzzer, the engineer will sound whistle signal 5.8.2(4) as acknowledgment. Conductors failing to hear the whistle signal acknowledgment must re-establish communication with the engineer to obtain acknowledgment or take the necessary actions to stop the train prior to reaching the restriction.

2.7 Monitoring Radio Transmissions:

All trainmen must carry a company radio and have it turned on to the proper frequency while working a train or performing duties related to train movement.

The engineer is designated as the primary radio operator unless a different procedure is determined through a job briefing.

2.21 Electronic Devices

Application for Commuter Operations:

The use of cell phones is prohibited and must be turned off when in engine or the control cab of moving trains. This includes Company issued cell phones unless all other forms of communications have failed. Conductors with company issued cells phones, not in the control compartment, may have cell phones on for required communications between crew members and/or commuter control.

If all other forms of communication fail, the Company issued cell may be used for communications. Cell phone communication with the engineer is limited to that required by the rules.

The train dispatcher or commuter control may authorize the use of a cellular phone in the control cab by someone other than a locomotive engineer operating the controls of a moving train, during mechanical breakdowns or other service interruptions, after a safety briefing, provided that all involved personnel agree that it is safe to do so. Any other use is prohibited in the cab.

This does not prevent the use of cell phones during emergencies.

Personal cell phones must be turned off when performing train or engine service. Employees covered by hours of service are considered to be on duty when in the confines of the train shed area.

6.11 Mandatory Directive

Application:

When a mandatory directive is issued to commuter trains, the conductor and engineer must each have a copy of the directive. The engineer may give the information to the conductor at first opportunity. It will not be necessary to discuss this information with other crew members before being acted upon. If an engineer receives such information just prior to a location where the directive takes effect, the engineer must comply with the information even if the conductor has not yet received the information.

Conductor and Engineer will retain a copy of mandatory directives from all trips during an entire day's tour of duty including trips before and after any "release periods" during a day.

6.25 Movement Against Current of Traffic
Add:
When exiting an against current of traffic movement at non-signaled hand throw crossover switch, be governed as follows:

- Verbal authorization must be received from the employee in charge of crossover switches at that location or the train dispatcher, before returning to operate with the current of traffic.
- Train must stop short of the first crossover switch at the exit location before returning to operate with the current of traffic.

6.30 Receiving or Discharging Passengers
Application:

1. Passenger trains must not enter a station at which another passenger train is stopped to receive or discharge passengers until first bringing train to a stop, after which they may proceed with caution to or through the platform, ringing bell and sounding whistle. When a train is "laying back" to delay entering a station, the train laying back must not enter that station until the departing train has cleared the platform area and the platform area can be plainly seen.
2. When two passenger trains are nearing a station at the same time and only one of them is scheduled to stop, the train to stop must not enter the station until the other train has cleared the platform area and the platform area can be plainly seen.
3. When two passenger trains are nearing a station at the same time and both are scheduled to stop, both trains may enter simultaneously. They must enter the station with caution ringing the bell and sounding the whistle when necessary. Eastward and Southward trains have preference in the AM and Westward and Northward trains in the PM.
4. Freight trains must make every effort consistent with safety and efficient train handling:

a. To avoid passing a station at which a passenger train is stopped to receive or discharge passengers.

b. To avoid entering the platform area until the passenger train has departed and the platform area can be plainly seen.

c. To control their speed to avoid entering a station during the time an on-time passenger train would normally be receiving and discharging passengers.

d. To communicate with passengers trains that may be met or passed to determine their locations.

Freight trains and engines **MUST** attempt to communicate by radio with scheduled passenger trains that may be met or passed prior to the scheduled time at stations, to determine the location of the passenger train and plan location of meet or pass. Also, attempt to contact the train dispatcher to determine location if unable to contact passenger train by radio.

When a freight train cannot avoid passing a station after a passenger train has entered, the whistle must be sounded until the front of the freight train has passed through the platform area. Freight trains that enter a station under these conditions (except under part 6 below) must notify Commuter Control by radio and advise circumstances.

If a freight train stops or becomes disabled at station platforms at or near scheduled times of passenger trains, the

engineer will, when possible, contact commuter control BEFORE the train is moved so that a public address announcement can be made to inform the public to stand clear. Required whistle signals must be sounded BEFORE any movement is made.

5. If it becomes necessary to operate a lift when operating on Track 2 between CP Y010 and CP Y011, CP Y029 and CP Y015, or between CP Y043 and CP Y044 the following applies:

- **a.** The train dispatcher must be notified that operation of the lift will be necessary at (Station). This must be done as far in advance as possible to avoid unnecessary delay.
- **b.** Request must be made to stop all trains on Track No. __ (the adjacent track to the side that the lift will be deployed).
- **c.** If advised that the control signals to protect the limits display Stop, but a train/s is in the area, the lift cannot be deployed until there is an understanding with the engineer that the train/s has cleared the station or will not enter the station area until notified it is safe to do so.
- **d.** When advised the control signals to protect the limits display Stop and no trains are approaching on the adjacent track, the lift can be deployed.
- **e.** The train dispatcher must be advised when the lift has been stowed and trains may operate through the station area.

6. The engineers of trains involved in the above will communicate by radio with other trains to plan the movements.

7.4 Precautions for Coupling or Moving Cars or Engines
Add:
When coupling a locomotive to a passenger car or another locomotive, the slack must be stretched twice to insure that the coupling has been made.

8.2 Position of Switches
Application:
Crews handling passenger equipment from a coach yard or parking track must inspect hand operated switches and spring switches under the standing train to ascertain that they are properly lined and latched. This inspection must be made regardless of the indication on switch stand.

9.9 Train Delayed Within a Block
Application:
A Chicago Commuter passenger train is not considered delayed within a block after making a scheduled stop of less than five minutes with no other delay.

15.2 A. Verbal Permission:
Application:
In Commuter Operations Territory the bulletin number, line number, location and subdivision name will be used to begin communication.

The following applies:
When granting verbal permission, begin the communication using the following words:

"Foreman (name and/or Gang No.) ____ using track bulletin No. ____ , Line No. ____, between MP _____ and MP _____ , _____ Subdivision"

32.1.1.1 Securing Locomotive Cab Doors
Application:
A. Unattended Locomotives
Commuter locomotives left unattended at outlying yards must be locked when mechanical department employees are not on duty. Secure commuter locomotives coupled to a coach as follows:

- Lock locomotive cab side doors and side windows from inside cab.
- Proceed into the engine room and lock the side door.
- Exit rear door and leave unlocked. Dismount locomotive through coach.
- Re-entry to locked locomotives must be done through the rear door of the locomotive.

Secure commuter locomotives not coupled to a coach as follows:

- Lock locomotive cab side doors and side windows from inside cab.
- Proceed into the engine room and lock the rear door.
- Exit engine room side door. Do not lock door.
- Re-entry to locked locomotives not coupled to a coach must be done through the engine room side door.

Employees must not attempt to lock/unlock locomotive side doors while standing on locomotive side ladders.

B. Attended Locomotives
Ensure cab doors are unlocked when locomotives are attended except when necessary to prevent unauthorized entry.

C. Cab Car Control Compartment Attended or Unattended
The control compartment doors on cab cars must be kept closed and locked at all times unless opened for immediate ingress/egress, maintenance or training purposes. Crews taking over equipment are responsible for ensuring that control compartment doors are closed and locked.

D. Keys
Locks on Commuter locomotives and coaches require a coach key. All crew members are required to have this key available while on duty. This key is available at Commuter Control.

71.2.2 Hearing Protection: Locomotives
Application:
Employees riding in the locomotive cab of F40PH engine must wear approved hearing protection whether the windows or doors are open or closed.

71.6 Proper Attire
Application:
Trainmen in passenger train service must wear proper uniform.

71.6.1 Highly Visible Outerwear
Application:
ANSI Class II green/yellow outerwear is not required for engineer walking to or from their train on the platforms of the OTC.

Trainmen in uniform must wear supplied hats with high-visibility reflective stripes.

81.4.1 Standing Equipment
Application:
When exiting from a passenger car loading door on a station platform, employees may get off standing equipment while facing forward if it is safe to do so. Keep hands free of any objects while getting on/off equipment. Maintain a firm handhold until both feet are placed on the platform.

81.8.3 Impaired Clearances
Bridge Clearance:
Employees are prohibited from riding on the side of equipment when closely approaching or when on bridges in elevated track territory.

81.7 Riding Equipment
C. How to Ride
Application:
When protecting a shoving movement of passenger equipment from the lead car with the end door open, the end gate must be placed in the lowered position prior to beginning movement.

Do not ride on the platform of Metra locomotives not equipped with end railings when the platform is on the leading end of the movement. Employees may ride in the engine compartment with the end door closed.

Item 13.8.2 Detector Failure - Action Table - Action No. 3
Application: A Chicago Commuter passenger train may proceed at normal speed making inspection of their train as time permits at station stops, and frequently inspecting their train while moving.

Rule Updated Date

November 19, 2024

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Item 10-K: Main Track Switches

1. Before performing work that involves hand operating any main track switch, all crew members must complete a job briefing on work to be performed and switches to be operated. After work has been completed, crew members must participate in a job briefing to ensure all main track switches operated have been restored to normal position before departing location.
2. In non signaled territory, except at locations where switches are operated with Radio Controlled Switches (RCS), record, as soon as practicable, the location and time each main track switch used is finally lined and locked to normal position. The conductor and engineer will initial each switch entry to acknowledge the completed job briefing concerning the switch being returned to normal position. If it is not practicable for an employee to personally initial the form due to logistics etc., an employee may make the appropriate entry for both crew members after the completed job briefing showing (e.g., "JM for MB").
    a. When a remote control operation is performing service in this territory, the entries will be made by the crew member handling the switch and initialed by the other crew member.

b. Entry is not required:

- Within Yard Limits or Restricted Limits.
- If the main track movement is made over the switch operated when departing location (e.g. following a head end setout or pickup).

Note: When a switch is operated by a crew member of another train or other employee after a train clears the main track (Rule 6.9 Meeting or Passing Precautions), entry must be made in both logs to acknowledge that the involved crews completed a job briefing and that main track switches operated have been restored to normal position and locked.

Example of Switch Documentation on "Form 20849."
Note: Example indicates Engineer as MB, Conductor JM and GF other employee.
EXAMPLES:

Location	Signal Name or TDD	Time	Comments & Other Delays
ESS Carlton		0835	Cleared MT ESS restored MB/JM
Carlton		0915	Met UP 4419 East
WSS Carlton		0950	Departed WSS restored MB/JM
ESS Gale		1245	Cleared MT ESS restored by GF. MB/JM for GF

3. Prior to release of track warrant authority or reporting clear of limits in non signaled territory, both the conductor and engineer must confirm, by job briefing, that all main track switches operated have been restored and locked in normal position. The crew member communicating with the train dispatcher must report:

- All main track switches operated have been restored and locked in normal position.
- The crew has completed the job briefing.
- Form 20849 is properly initialed.

When a hand operated switch is used to clear the main track, the train dispatcher must repeat the information and the employee must acknowledge.

4. When practical, a crew member will attempt to contact an approaching train to inform them that facing point hand operated switches are properly lined for their movement, and comply with the requirements of Rule 8.7.

5. Procedure PS

When instructed by the train dispatcher (either verbally or by track warrant) to comply with procedure PS at (location), approach switches prepared to stop and line switches to their normal position. Crew member or employee must advise the train dispatcher when it is known switches are lined in their normal position.

Rule Updated Date

May 10, 2022

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Item 10-L: Additional Equipment Securement Requirements

A. **Securement of Unattended Equipment**

When securing a train or equipment:

- Perform a job briefing with all crew members on the securement procedure.
- UPRR crews must comply with UPRR ABTH securement requirements.
- Foreign line crews must comply with that railroad's securement requirements. When not practical to perform a release test to verify sufficient handbrakes have been applied, crew must use UPRR Securement Chart (included on next page) to determine the number of handbrakes necessary.
- Complete UPRR Train and Locomotive Securement Checklist and leave on the controlling locomotive if locomotives are attached.

B. **Additional Key Train / Key Train Commodity Securement Requirements**

Key trains or rail cars meeting the Key Train definition must not be left unattended on a main track or siding except when:

- Locomotive cab is properly secured or reverser is removed and secured. UPRR crews comply with ABTH Rule 32.2.1.1 (Securing Locomotive Cab Doors).

In addition, before a Key Train or rail cars meeting the Key Train definition are left unattended on a main track or siding, the crew must provide securement information to the train dispatcher. Use the correct verbiage located in the UPRR Train and Locomotive Securement Checklist.

- Number of handbrakes applied.
- Tonnage and length.
- Type of equipment.
- Grade and curvature of track.
- Weather conditions.
- Type of securement procedure used (primary, secondary, or both).

All locomotive engineers must obtain a reverser at the on duty location if called to operate a Key Train.

C. **Emergency Personnel**

Promptly notify the train dispatcher when emergency personnel (firefighter, police, medic, etc.) are observed on, under, or between cars or locomotives that have been left unattended on main track or siding outside of a yard/terminal.

The train dispatcher will arrange for a qualified employee to attend the train or cars.

Following arrival of the qualified employee, the train or cars must not be left unattended until emergency personnel's duties no longer require them to be on, under, or between the equipment and a qualified employee inspects the train or cars for securement according to requirements and notifies the train dispatcher the inspection is complete.

D. **Securement Chart**

	Securement Chart – When Not Practical to Verify Required Hand Brakes by Release of Air Brakes
	Number of Applied Hand Brakes Required

	Grade (%)												
Tons	**<0.25**	**0.25-0.49**	**0.50-0.74**	**0.75-0.99**	**1.00-1.24**	**1.25-1.49**	**1.50-1.74**	**1.75-1.99**	**2.00-2.24**	**2.25-2.49**	**2.50-2.74**	**2.75-2.99**	**≥ 3.00**
< 1,000	2	2	2	3	4	4	5	6	6	7	8	8	9
1,000-1,999	2	3	4	6	7	8	10	11	12	14	15	16	18
2,000-2,999	2	4	6	8	10	12	14	16	18	20	22	24	26
3,000-3,999	3	6	8	11	14	16	19	22	24	27	30	32	35
4,000-4,999	4	7	10	14	17	20	24	27	30	34	37	40	44
5,000-5,999	4	8	12	16	20	24	28	32	36	40	44	48	52
6,000-6,999	5	10	14	19	24	28	33	38	42	47	52	56	61
7,000-7,999	6	11	16	22	27	32	38	43	48	54	59	64	70
8,000-8,999	6	12	18	24	30	36	42	48	54	60	66	72	78
9,000-9,999	7	14	20	27	34	40	47	54	60	67	74	80	87
10,000-10,999	8	15	22	30	37	44	52	59	66	74	81	88	96
11,000-11,999	8	16	24	32	40	48	56	64	72	80	88	96	104
12,000-12,999	9	18	26	35	44	52	61	70	78	87	96	104	113
13,000-13,999	10	19	28	38	47	56	66	75	84	93	103	112	122
14,000-14,999	10	20	30	40	50	60	70	80	90	100	110	120	130
15,000-15,999	11	22	32	43	54	64	75	86	96	107	118	128	139
16,000-16,999	12	23	34	46	57	68	80	91	102	113	125	136	148
17,000-17,999	12	24	36	48	60	72	84	96	108	120	132	144	157
18,000-18,999	13	26	38	51	64	76	89	102	114	127	140	152	165
19,000-19,999	14	27	40	54	67	80	93	107	120	133	147	160	174
20,000-20,999	14	28	42	56	70	84	98	112	126	140	154	168	183
21,000-21,999	15	30	44	59	74	88	103	118	132	147	162	176	191
22,000-22,999	16	31	46	62	77	92	107	123	138	153	169	184	200
23,000-23,999	16	32	48	64	80	96	112	128	144	160	176	192	209
24,000-25,000	17	34	50	67	83	100	117	134	150	167	184	200	217

Note: When the number of required hand brakes exceeds the total number of hand brakes available on the train, all hand brakes must be applied.

Train must not be left unattended unless it is verified that hand brakes will prevent movement by releasing all air brakes.

Application:

When train's tonnage exceeds 25,000 tons:

1. Use the grade column to determine the number of handbrakes required for securing 25,000 tons.
2. Subtract 25,000 tons from the train tonnage. Use the remaining tonnage and the grade column to determine the number of hand brakes required.
3. Add the number of handbrakes required from Steps 1 and 2 to determine the total number of handbrakes required.

Example:

When using the Securement Chart to secure a 32,598 ton train on a 0.7% grade:

1. 25,000 tons on a 0.7% grade requires 50 handbrakes.
2. 32,598 – 25,000 = 7,598. On a 0.7% grade, 7,598 tons requires 16 handbrakes.
3. 50 + 16 = 66 handbrakes required.

Rule Updated Date

May 5, 2021

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Item 10-M: Mechanical Department (Maintenance Operations)

GCOR Chapters 1 - 17
The following instructions modify rules or clarify the application for the Mechanical Department.

2.21. Electronic Devices
Personal use of electronic devices must be limited and not interfere with duties.

Electronic devices must not be used while:

- In a Red Zone.
- Walking in areas that require the use of PPE.
- Operating any vehicle (locomotives, car movers, forklifts, scooters, man lifts, off road and yard vehicles, etc.)
- Operating or in close proximity of operating machinery.
- Performing any safety sensitive work activity.
- In the line of fire.
- Involved with the movement of rail equipment.
    - When involved with the movement of rail equipment, electronic devices must be stowed away, out of the work area (e.g., personal locker), and not on your person.

5.3.6 Radio and Voice Communication

Employees may use radio and other means of voice communication to give information when using hand signals is not practical.
Employees must make sure crew members:

- Know which moves will be made by radio communication.
- Understand that while using the radio, the operator will not accept any hand signals, unless they are Stop signals.

The following communications will be made by radio communication.
Prior to movement:

When operator is providing point protection:

- Transmit to ground person how far it can visually be determined the route is properly lined.
- Ground person will acknowledge exact transmission back to operator.

When ground person is providing point protection:

- After operating a switch or derail, transmit to operator confirming exact track, switch(es) and/or derail(s) that are lined for movement.
- Operator will acknowledge exact transmission back to employee.

- Ground person will then visually double check alignment and transmit to operator that instructions repeated are "correct".

Locomotive and Car movements:

Hand signals are to be used when handling locomotives or cars when the operator is in clear view. Use the radio only when the operator is not in sight of the employee giving signals, when confirming and acknowledging switch/derail alignment as outlined above, or in case of emergency.

5.13: Blue Signal Protection of Workmen

Change rule to read:

1. **Blue Signal Protection On Locomotives, Locomotive Consists, and Distributed Power Units**
2. **Blue Signal Protection On a Main Track**
3. **Blue Signal Protection On Other than a Main Track**
4. **Blue Signal Protection In Locomotive Servicing Areas**
5. **Blue Signal Protection In Car Shop Repair Track Areas**
6. **Blue Signal Protection Removal**

Tasks Not Requiring Blue Signal Protection (this list is all inclusive)

A. Supplying engines or passenger cars with ice, drinking water, tools, sanitary supplies, stationary, or flagging equipment. Sweeping, removing trash, or wiping down consoles and other cab surfaces.

B. Making visual observations while alongside an engine or passenger car (exception does not apply to 9414 Locomotive Daily Inspection performed by Mechanical Department personnel).

C. Repositioning the activation switch or covering the photoelectric cell of the marker when the rear of the train is on main track. The employee inspecting the marker must contact the employee controlling the engine to confirm that the train will remain secure against movement until the inspection is complete.

D Pressing the activation switch on an End of Train device with a brake stick when employee does not foul the equipment.

E. Starting, shutting down an engine, checking engine oil, or operating breakers or start fuses while starting or shutting down an engine.

F Radio Linking of Distributed Power Units (DPU) when work does not require going between equipment.

G Cutting automatic brake valves in or out and setting the MU valve.

H. On a main track, if a blue signal is not available for employees performing emergency repairs on, under, or between an engine or rolling equipment coupled to an engine, the employee controlling the engine must be notified and appropriate measures taken to provide protection for the employees.

I. Fueling locomotives within a train on main track only, after a thorough job briefing has taken place with the crew on the controlling locomotive. Job briefing must:

- Include an understanding of all locomotives to be fueled.
- Ensure movement will not occur while fueling.
- Include specific communication to be used when fueling has cleared and it is safe to move/respot the train.

Individual Tag

Each locomotive department employee is required to apply a blue ID tag with their name and craft to the blue signals/flags

within Locomotive Servicing Areas.

Controlling Locomotive
A Controlling Locomotive means the locomotive that is controlling from its cab the propulsion systems, sanders, and power brake system of each locomotive that is pneumatically, electrically, and mechanically connected together in a consist.

Electrically can be either by jumper cable or by radio signal. Mechanically connected means that the locomotive units are physically coupled together. Pneumatically means the appropriate air hoses that control the operation of the brakes are connected and cut-in.

1. Blue Signal Protection On Locomotives, Locomotive Consists, and Distributed Power Units
This section applies to any location where a locomotive or locomotive consist requires blue signal protection (On a Main Track, On Other than a Main Track, and Locomotive Servicing Areas)

A. Every locomotive with a worker working on, under, or between that locomotive – or any rolling equipment coupled to that locomotive – requires a blue signal attached to each controlling locomotive at a location where it is readily and immediately visible to the engineman or operator at the controls of that locomotive.

B. If a locomotive being worked on is coupled to other locomotives and each locomotive in the consist is coupled with air brakes and MU/radio connected so that each locomotive responds to the controls of only one locomotive (the lead unit), then only the controlling (lead) unit requires a blue signal displayed at the controls.

C. If locomotives are coupled together, but control cables and/or MU hoses are not connected so that all of the locomotives respond to one controlling locomotive, then each locomotive in the consist would require a blue signal at their controls.

Note: Unless the automatic brake valve is cut-out and the MU valve is placed in the trailing position, a blue signal has to be attached to all locomotives that are capable of being used as a controlling unit.

1.1 Remote Control Locomotive (RCL)
Prior to applying blue signal protection on a RCL (including slug units) determine if the unit is equipped with "Maintenance Mode" function.

A. When outside of a designated facility, all mechanical department employees making repairs to a remote control locomotive or rolling equipment attached to RCL and/or RCL slug units, must apply blue signal protection via one of the methods below:

1. If RCL is equipped with "Maintenance Mode" function

    - Job brief with Remote Control Operator(s) (RCO).
    - Verify number of Operator Control Units (OCUs) linked to RCL.
    - Verify OCU's are "OFF" and apply individual blue tag to each OCU.
    - Place RCL into "Maintenance Mode" from the locomotive's control unit.
    - Apply individual blue tag to locomotive's control unit.

2. If RCL is not equipped with "Maintenance Mode" function:

    - Place the remote control selector switch in the "Manual Position".
    - When applicable, the remote control air brake isolation valve must be placed in "Manual Position".
    - Apply individual blue tag to locomotive's control unit.

B. RCL may be placed in remote mode while under blue signal protection to service remote control locomotive equipment /functions when the following conditions are met:

1. The employee placing the locomotive in remote mode is authorized to repair and operate the remote control equipment.
2. All employees involved on the unit and/or tracks are job briefed and warned against possible inadvertent movement of the locomotive.

2. Blue Signal Protection On a Main Track

A. A blue signal must be displayed at each end of the rolling equipment.

B. A blue signal must be attached to the lead controlling locomotive, any manned helper controlling locomotive, and be visible to the engineer or employee at the controls of the locomotive(s).

C. The engine must not be moved.

D. Engine controls, brakes, circuit breakers and electrical switches (except cab lights) must not be operated unless directed by individuals who placed the blue signals or by the employee in charge of the workmen.

3. Blue Signal Protection On Other Than a Main Track

Blue signal protection, used in train yards, sidings, and any tracks outside of areas designated as Locomotive Servicing Areas, will be established for each individual track using one of the three methods of protection or a combination of the methods stated below. Within a protected track, a blue signal must be visible from the control stand of each controlling locomotive.

A. Each manually operated switch, including any facing point crossover switch that provides direct access, must be lined against movement onto the track and secured by an effective locking device. A blue signal must be placed at or near each switch.

B. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and be placed:

- 150 feet from the rolling equipment to be protected.
  or
- 50 feet from the end of rolling equipment on a designated engine servicing track or car shop repair track where speed is limited to 5 mph. A blue signal must be displayed at each derail.

C. Where remote control switches or derails provide direct access, the employee in charge of the workmen must tell the switch/derail operator what work will be done. The switch/derail operator must then:

- Inform the employee in charge of the workmen that the switches have been lined against movement onto the track and devices controlling the switches have been secured.
- Not remove the locking devices unless the employee in charge of the workmen says it is safe to do so.
- Maintain for 15 days a written record of each notification that includes:

  a. Name and craft of the employee in charge of the workmen requesting protection.

  b. Identification of track involved.

  c. Date and time the employee in charge of workmen is notified that protection was provided.

  d. Date, time, name, and craft of the employee in charge of workmen who authorized removal of the protection.

4. Blue Signal Protection In Locomotive Servicing Areas

When workers are on, under, or between rolling equipment in a locomotive servicing area, blue signal protection will be provided in accordance with 49 CFR 218.29. Protection will be established for the locomotive service area as a whole and not for individual tracks.

4.1 Establishing Protection in Locomotive Servicing Areas

A. A blue signal must be displayed at or near each switch or derail that provides access to or departure from the Locomotive Servicing or Repair Area.

B. Each switch providing entrance to or departure from the area must be lined against movement to the area and locked with an effective locking device.

- A derail, locked in the derailing position, fulfills the requirements of a manually operated switch when placed 150 feet from the end of the protected equipment.
- If speed is restricted to 5 mph, then this distance may be reduced to no less than 50 feet when speed restriction is conveyed by a physical sign or by a written bulletin or timetable instruction. A blue signal must be displayed at the derail.
- Where remote control switches or derails provide direct access, the switch/derail operator must maintain for 15 days a written record of each notification that includes:
  - **a** Name and craft/crew of the employee requesting access.
  - **b** Identification of switch/derail and the track involved.
  - **c** Date, time, and name of the switch/derail operator removing the protection.
  - **d** Date, time, and name of the switch/derail operator restoring the protection.

A. A locomotive may be moved into a locomotive servicing area after the blue signal has been removed from the entrance switch to the area. However, the locomotive must be stopped short of coupling to another locomotive. Blue signal protection must be restored immediately after the locomotive has cleared the switch.

B. A locomotive may be moved out of a locomotive servicing area after the blue signal has been removed from the controlling locomotive to be moved and from the area departure switch. Blue signal protection must be restored immediately after the locomotive has cleared the switch.

4.2 Movement in Locomotive Servicing Areas

A locomotive not blue flagged, within a Locomotive Servicing Area, can be moved without removing blue signals displayed at the entrance switches or derails provided:

A. An authorized mechanical employee operates the locomotive under the direction of the employee in charge of workmen.

B The blue signal has been removed from the controlling locomotive to be repositioned.

C Workmen on the affected track(s) where movement will occur have been notified of the movement.

D When moving into a track with protected equipment:

- Movement must stop at least 50 feet short of equipment under blue signal protection.
- Workers working on the protected equipment must be in the clear while movement proceeds within 50 feet.

- Once the movement has stopped, workers may resume work on the protected equipment.

E The locomotive does not impact or couple to a locomotive on which a blue signal is displayed.

5. Blue Signal Protection In Car Shop Repair Track Areas.

When workers are on, under, or between rolling equipment in car shop repair track area, blue signal protection will be provided in accordance with 49 CFR 218.29.

5.1 Establishing Protection in Car Shop Repair Track Areas

A A blue signal must be displayed at or near each switch or derail that provides access to or departure from the Car Shop Repair Track Area. A blue signal will also be displayed at each track inside the facility that is equipped with a derail. The derail must be in the derailing position when cars are being repaired.

B Each switch providing entrance to or departure from the area must be lined against movement to the area and locked with an effective locking device.

- A derail, locked in the derailing position, fulfills the requirements of a manually operated switch when placed 150 feet from the end of the protected equipment.
- If speed is restricted to 5 mph, then this distance may be no less than 50 feet when speed restriction is conveyed by a physical sign or by a written bulletin or timetable instruction. A blue signal must be displayed at the derail.
- Where remote control switches or derails provide direct access, the switch/derail operator must maintain for 15 days a written record of each notification that includes:
  - **a** Name and craft/crew of the employee requesting access.
  - **b** Identification of switch/derail and the track involved.
  - **c** Date, time, and name of the switch/derail operator removing the protection.
  - **d** Date, time, and name of the switch/derail operator restoring the protection.

5.2 Movement in Car Shop Repair Track Areas

A car mover may be used to reposition rolling equipment within this area given that:

A The car mover is operated by an authorized employee under the direction of the person in charge of the workmen.

B Workers on the affected track have been notified of the movement.

6. Blue Signal Protection Removal

When Blue Signal Protection is left unattended the following steps must be taken to avoid the accidental or unintended removal of protection prior to movement of any rolling equipment.

Employee In Charge

A common authority in charge of the workgroup, such as a Foreman, Foreman General, or a Supervisor/Manager.

6.1 Blue Signal Protection with no Individual Tags

A If blue signal protection is left unattended on equipment or tracks with no individual tags, the Employee In Charge of the workgroup must perform a complete inspection of the equipment on track to determine that no employee is working on, in, above, below, or between rolling equipment.

B

. If no employee is found working on, in, above, below, or between rolling equipment, the Employee In Charge of the workgroup may remove blue signal protection.

6.2 Blue Signal Protection with Individual Tags

A Individual tags can only be removed by the individuals that placed them or the Employee In Charge.

· **B** If blue signal protection is left unattended on equipment with individual tags, the Employee In Charge of the . workgroup must perform a complete inspection of the equipment on track to determine that no employee is working on, in, above, below, or between rolling equipment.

C If individual tag's owner(s) is not located, the Employee In Charge must check the EDCS calendar to confirm if . employee(s) is clocked in or out.

- If employee(s) is clocked in**,** a search for employee will be conducted. Employee must remove individual tag(s) or be contacted to authorize the Employee In Charge to remove the individual tag(s) attached to the Blue Signal.
- If employee(s) is clocked out**,** the Employee In Charge may remove the individual tags attached to the Blue Signal.

5.14 Signs Protecting Equipment
Application:

The loading and unloading of sand for sand towers, the unloading of fuel or other similar operations should be protected by a sign reading "Stop, cars being loaded or unloaded". This sign should be placed at the location providing positive protection for the track(s) being used, either at each switch providing access to the track and the switch lined and locked to prevent movement to that track or, at each fixed derail locked in the derailing position, preventing movement into the cars being protected.

6.5: Shoving Movements

A. Providing Protection Prior to Initiating Shoving Movement
Equipment must not be shoved until the operator and the employee protecting the movement have completed a job briefing detailing how protection will be provided. 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.

B. Providing Protection During Shoving Movement
When making a shoving movement, the employee protecting the movement must:

- Position themselves ahead of the movement at a location where movement will stop.
- Face the equipment and bring movement towards them.
  or
- Ride the leading end of the equipment, positioning themselves on the side of the operator.

C. Participating Crew Members

- Must not engage in unrelated tasks.
- Acknowledge all distance and direction commands.

- Radio transmission, not pertaining to the shoving movement, will only be sent or acknowledged after the movement has stopped.
- Movement must stop within half the distance specified unless additional instructions are received.

D. Over Road Crossings
Shoving movements over road crossing must be made in accordance with Rule 6.32.1

- Applies to shoving or kicking cars at grade only
- Exception for crossings used exclusively by railroad employees

7.6 Securing Cars or Engines
Application:

The following applies:

- Before working on rolling equipment a handbrake or chock must be applied to the equipment and to adjacent rolling equipment on the same track.
- Before coupling into or cutting away from a single, coupled and/or consisted locomotive(s), a minimum of one hand brake and air brakes (if charged) must be applied.
- When left unattended on non-grade (no slope) track, a minimum of one handbrake will be applied to any uncoupled locomotive; any group of coupled locomotives and any locomotive consist.
- When rolling equipment is left unattended on grade (sloped) track, 100% of the handbrakes will be applied.
- When work requires the hand brake to be released, alternative means such as chocks or coupling to another locomotive, coupled and/or consisted locomotives with a hand brake set must be used to prevent movement.
- On units with under slung brake cylinders (attached to brake levers between the wheel versus mounted on the truck) insure the valve bleeds the air brakes off the truck when applying the hand brakes. If the brakes do not bleed off cut the truck out, apply the hand brake and cut the truck back in.

Switching or Spotting Operations in Car and Locomotive Shop Tracks

In addition to compliance to Rule 81.10; 81.5.4; and supplement Moving Equipment in Locomotive, Car or Maintenance of Way Repair Facilities, the following also applies:

- Any ground crew member intending to foul track or equipment must notify the operator before such action can take place. Operator must then apply the brakes and have reverser centered or car mover in neutral, and then confirm this action with the individual on the ground. e.g. "UP Smith to car mover/loco unit #1234 going into the red zone to adjust the knuckle/drawbar -- over" to which the operator will respond "Car mover/loco unit #1234 to UP Smith. I understand. I am set and centered - out". If equipment is not equipped with a reverser, it must be placed in neutral or park with the brakes applied. Job briefing and/or agreed upon hand signals may be used to accomplish the above.
- Any ground crew member that intends to adjust knuckles/drawbars must ensure that the equipment to be coupled into is separated by no less than 50 feet. Also the person on the ground must ensure that the equipment will not move ensuring that sufficient hand brakes or wheel chocks are applied.
- After exiting the red zone, ground crew member should signal/notify the locomotive/car mover operator that they are clear of the red zone.

Working In Bowl and Yard Tracks or Main Tracks
Application:

- Contact train crew and yardmaster confirming intentions to make repairs to cars and/or locomotives.
- Apply blue signal protection including locking out the track.
- Ensure 2x2x2 requirements are met. Equipment is separated at least 2 car lengths (100 feet) and wait 2 minutes (to assure that all equipment is at rest) before stepping between the rails. Also apply 100% handbrakes on standing equipment opposite of equipment that requires repair.
- When possible, have a second person watch for unexpected movement while making repairs.
- Mechanical forces will apply the automatic brake with a 20-psi brake pipe reduction after completion of the air brake test.

Securing Rerailed Equipment at Derailments
Application:

- Comply with rules on properly securing cars and locomotives and the instructions in the first paragraph of this supplement.
- Be aware that all equipment may not have functional handbrakes and that necessary precautions must be taken to secure this equipment, i.e. coupling to another car or locomotive with an operative handbrake applied and/or properly chocking the wheels.
- When rerailing operations are being performed on any grade (sloped) territory a derail will be applied to the low end of any track (including the mainline if applicable) on which rerailed cars are positioned. Portable derails are to be used if permanent derails are not available and placed as close to the equipment as feasible. Contractors are also required to comply with this rule.

8.20 Derail Location and Position
Change to read:
Within designated engine servicing areas movement must stop at least 50 feet from derail in derailing position before proceeding.

Do not make a movement over a derail in derailing position.

Siding having hand-thrown derails will have derail locked in the non-derailing position, except when engines or cars are left unattended on siding. On auxiliary tracks other than siding, except when derails are placed in non-derailing position to permit movement, make sure they are always in derailing position regardless of whether cars are on the track they are protecting. Lock all derails equipped with a lock.

Derails that are used in conjunction with worker protection must be in the derailing position with proper flag displayed only when their use is required for such protection. When their use is not required for protection:

- Remove portable derails, then remove flag
  or
- Lock fixed derails in non-derailing position with an effective locking device, then remove (take down) flag.

If a derail used for blue flag protection is found in the derailing position and is not being used in conjunction with Rule 5.13, employees are to:

- Warn oncoming rolling equipment to stop.

- Notify supervisor or manager by quickest available means.
- Place derail in non-derailing position as instructed.

Safety Rules Chapters 70 - 83
The following instructions modify rules or clarify the application for the Mechanical Department.

71.6.1 Highly Visible Outerwear
Application:

Clarification on vest color and designated areas for Mechanical Employees:

1. Locomotive mover teams (predominantly F&O's) are required to wear ANSI II High Visibility Orange outerwear when they are moving locomotives within the shop Blue Flag areas around servicing and repair facilities. In noise sensitive areas such as Chicago, locomotive mover teams at local management discretion may wear ANSI II High Visibility Yellow outerwear in lieu of Orange (to avoid the requirement for Engineers having to sound their horns).
2. All Mechanical Employees (except locomotive movers per paragraph 1 above) shall wear ANSI II High Visibility Yellow outerwear while working near track that is outside of their designated repair/servicing areas. Vests are not required when mechanocal employees are working within designated repair/servicing areas.

72.6 Ignition Sources
Application:

1. Manager or foreman general will be notified that welding, heating or cutting must be used and the work cannot be moved to another location to perform the task.
2. The supervisor in charge of the area will see that all procedures and precautions are followed and a job briefing is developed and conducted.
3. The job briefing will include the following:
    - Only qualified employees will perform the welding, heating or cutting.
    - All personal protective equipment will be used.
    - The area must be cleaned with soap and flushed with water and no standing fuel or oil in the area. Also the area must be free of trash and debris.
    - All fueling operations within 50 feet of the operation must be stopped. This includes adjacent pits or fueling locations.
    - All individuals in the area must be notified that welding, heating or cutting will be taking place.
    - A fire watch must standby during the entire operation and be trained to operate and use the fire extinguishing equipment.
    - Potential hazards associated with the work are identified and discussed during the job briefing. This could include: securing the material being removed, equipment to handle the material or other special needs.

76.3.3 Sharp Edged Tools
Mechanical department employees will not carry or use a personal pocket knife/knife while on duty.

77.6 Crane Operator
Add:
Crane operators must not leave an unattended load suspended.

78.2 Lockout/Tagout

Application:

Lockout or tagout a de-energized energy source before performing maintenance or repair work.

This lockout or tagout procedure must be treated the same as the blue flag and tag procedure.

When applying a tagout device, employee must also apply their Lockout/Tagout name tag to the device.

Mechanical Process:

- Job Briefing – Face-to-Face job briefing must take place with employees currently working on equipment or machinery before you start working on the same equipment or machinery.
- Whenever work will be performed, identify and neutralize any stored energy, and tag out the Energy Source(s) BEFORE performing the work.
- Employee(s) requiring lockout/tagout protection must apply their lockout/tagout (LOTO) Tag.
    - This does not apply to Load Testing or Servicing locomotives.
- Remove LOTO name tag and tagout device when work is complete or leaving the equipment or machinery work area for an extended period of time.

Change of Shift or Personnel:

To insure the continuity of Tag Out protection during shift or personnel changes the Manager/Supervisor will ensure that:

- The transfer of tagout devices between the off-going and on-coming employees is coordinated to provide continuous protection.

Tagout Device Removal:

Each tagout device shall be removed from each energy isolating device by the employee who applied the device. When the authorized employee who applied the tagout device is not available to remove it, that device may be removed as follows:

- After a reasonable search for the employee, only a Supervisor or Manager is authorized to remove a "Tagout Device" with no name tag.
- After a reasonable search for the employee, only a Manager is authorized to remove a "Tagout Device" with a name tag.
- The energy source has been verified that it is safe to re-energize.

Intentional removal of a tag or tagout device without communicating with the employee(s) that tagged out the equipment or machinery is unacceptable at risk behavior.

Unintentionally leaving the tagout device and/or tag will be treated the same as blue flags and tags.

79.1 Authorized Employees

Change to read:

Only employees qualified under the UPRR Welder Qualification Programs are permitted to use welding/cutting equipment.

All equipment must be used and maintained in accordance with the manufacturer's instructions.

79.7 Torch Test
Application:

WHEN USING GAS CYLINDERS

1. TEST OXYGEN

A Completely back out the oxygen adjusting mechanism.

· **B** Slowly open the oxygen valve until high pressure gauge stabilizes.

· **C** Shut off the oxygen valve and monitor the gauge for pressure drop. If there is a drop, it would indicate a leak. Locate/fix leak.

D If no leak is evident, fully open the oxygen valve and adjust the regulator to deliver 20 psi of oxygen.

2. TEST FUEL GAS

A Completely back out the fuel gas adjusting mechanism.

· **B** Slowly open the fuel gas valve until high pressure gauge stabilizes.

· **C** Shut off the fuel gas valve and monitor the gauge for pressure drop. If there is a drop, it would indicate a leak. Locate/fix leak.

D If no leak is evident, fully open the fuel gas valve and adjust the regulator to deliver 10 psi.

3. TEST LOW PRESSURE

A Close both the oxygen & fuel cylinder valves.

· **B** Turn the adjusting knob counter-clockwise ½ turn on each cylinder.

· **C** Monitor the gauges for any changes. If the readings do not change, the system is leak tight. Open the cylinder valves again while looking at the gauges. Any needle movement indicates a possible leak. Locate/ fix leak.

D If attempts at fixing leak(s) fail, notify your supervisor.

WHEN USING SHOP-SUPPLIED GAS

A Ensure Fuel Gas and Oxygen line valves are off.

· **B** Ensure all torch handle knobs are closed.

1. TEST OXYGEN

A If torch handle has a pre-heat knob, keep that knob closed and open the oxygen knob on the handle.

· **B** Completely screw in (clockwise) the oxygen adjusting mechanism.

· **C** Slowly open the oxygen line valve until pressure gauge stabilizes.

· **D** Shut off the oxygen line valve and monitor the gauge for pressure drop (1-2 minutes). If there is a drop, it would indicate a leak. Locate/fix leak.

E If no leak is evident, set oxygen to operating pressure using the adjusting mechanism (allow oxygen to bleed off from the torch handle).

2. TEST FUEL GAS

A Close all torch handle knobs.

- **B** Completely screw in (clockwise) the fuel gas adjusting mechanism.
- **C** Slowly open the fuel gas valve until pressure gauge stabilizes.
- **D** Shut off the fuel gas valve and monitor the gauge for pressure drop (1-2 minutes). If there is a drop, it would indicate a leak. Locate/fix leak.

E If no leak is evident, set fuel gas to operating pressure using the adjusting mechanism.

- **F** If attempts at fixing leak(s) fail, notify your supervisor.

- **TORCH HANDLE & BODY LEAK TEST (Optional additional test for testing the torch body)**

1. Apply the test fixture to the torch tip (417-7221 approved test fixture).
2. Open all torch valves. Depress high pressure cutting lever. NOTE: A small drop in pressure will occur. Pressure should stabilize.
3. Monitor the high and/or low pressure gauges for pressure drop for 1 minute. If there is a drop, it would indicate a leak in the torch handle. Locate/fix leak if possible. Check test fixture, connections, tip, tip nut and lever valve.
4. Repeat steps 2 and 3. If leakage is still present, remove torch from service and notify your supervisor.
5. If no leak is evident, set oxygen and fuel gases to appropriate operating pressures using the adjusting mechanisms.

CUTTING / WELDING OPERATION COMPLETE

When you have finished your cutting/welding operation ensure the following:

1 First, shut off the torch oxygen valve. Then, shut off the torch fuel valve.

- **2** Close both cylinder valves.
- **3** Open the torch handle oxygen valve. Let the oxygen in the system drain out. Close the torch oxygen valve.
- **4** Turn the adjusting screw on the oxygen regulator counterclockwise to release all spring pressure.
- **5** Open the torch handle fuel valve. Release the pressure in the system. Close the torch fuel valve.
- **6** Turn the adjusting screw on the fuel gas regulator counterclockwise to release all spring pressure.
- **7** Check the high pressure gauges after a few minutes to be sure the cylinder valves are turned off completely.
- **8** If the cylinders are mounted in a service truck the operator must insure that the above procedure is completed prior to the cabinet doors being closed.

79.12. Metal Cutting Precautions

Add:

Do not direct heat or sparks in the direction of other employees.

80.14 Fall Protection

Instructions:

Do not work on bridges, elevated structures, or roofs of cars and locomotives without proper authority. Comply with appropriate departmental instructions and the Fall Protection Policy.

The use of fall protection is required anywhere a worker is subjected to a fall of four feet or greater (thirty inches or greater in California). A risk assessment for fall hazards should also be made for job sites where fall distances are less than those listed above. If the risk assessment warrants a personal fall protection system, it must be worn.

Work activity performed on the sides of a car or locomotive that meet the above height guidelines can be met with a work positioning harness and lanyards while tethered to a fixed ladder rung or handhold or while operating out of a boom type man lift with fall restraint / arrest systems (e.g. change out front or rear locomotive headlights). Work on top of cars or locomotives must either utilize an overhead fall protection system or the appropriate man lift with equipped fall restraint / arrest system.

When work is being performed below the locomotive hand rail, or when an elevated platform (e.g., step ladder, built-in engine step, etc.) places you above the locomotive handrail at a location that does not have an elevated ramp, a net or other fall arresting device must be installed. This does not apply to servicing such as: checking oil, adding oil, adding water, taking samples or adding other fluids.

Employees must be properly trained in the use of fall protection. If fall protection is not available and/or the employees are not trained, then the work cannot be done until these conditions are met.

Written Plan

Local fall protection minimum requirements in written plan will include:

- Identification of tasks with a fall hazard of four feet or more (30 inches in California).
- Complete CR74RZ on a tri-annual basis.
- Local rescue and retrieval procedure in the event of a fall.
- Pre use and annual inspection of fall protection equipment.
- Performance evaluations check and adjust training as required.

Each individual must observe for oily, icy or slippery conditions and review the safety aspects of the job task looking for any at risk conditions that might create loss of balance or use of force. The supervisor or manager and employee will review the risk assessment and correct any safety issues before work is authorized to begin.

81.2.2 Sufficient Distance
Application:

In Mechanical Department facilities equipment must be separated at least 50 feet instead of 100 feet before going between the equipment unless protected by Rule 5.13.

Within a car shop area or a designated locomotive service area that is exclusively controlled by mechanical department personnel, employee(s) may go between or around equipment in less than the specified distance when:

- It is known no movement will occur,
- The location has a speed limit of 5 MPH or less,
  and
- The facility is protected by Rule 5.13

81.4.1 Standing Equipment
The following precautions must be taken when getting on or off and while on standing equipment:

A. When getting on or off from the ground level:

- Always use the provided appliances (steps, ladders, and hand holds). Be aware of and takenecessary precautions to prevent injury from the build up of snow, ice, water, mud, grease, and oil on footwear, sill steps, platforms and side ladders.
- Keep hands free of all objects that may hinder a secure handhold. Always maintain a securegrip on the handholds on engine platforms or while using appliances on the equipment. Be prepared for sudden movement.
- Use extreme care during wet, muddy, snowy, or icy conditions and at night in unlit areas.
- When getting on or off standing equipment:
    - Face the equipment and use the side ladder or steps, maintaining three-point contact. Feet must be securely placed.
    - Stop on the bottom step maintaining four-point contact and observe surface conditions of the ground and activity in the area before getting off. Guard against injury by looking out for unsafe footing, obstructions, or equipment moving on other tracks. Perform a 180 degree look before stepping off equipment.
    - When getting off, retain a grip with both hands on the handhold until both feet are firmly placed on the ground or other support.
    - When practical, get on or off equipment on the side away from main tracks or close clearances.
    - When practical, get off of equipment on the same side that you got on the equipment.

B. When getting on or off by transitioning to or from a shop ramp and locomotive platform at facilities:

- Not equipped with crossing platforms, always maintain three-point contact while transitioning between the shop ramp and locomotive platform.
- Equipped with crossing platforms, always use the crossing platforms that span the distance between the shop ramp and locomotive platforms.
    - Always install and remove the crossing platform from the shop ramp.
    - Ensure the crossing platforms are securely installed and locked in place.
    - Keep hands free of all objects and maintain a secure grip on the handholds.

    Exception: Employees actively involved with locomotive movement are not required to utilize crossing platforms, however, they must maintain three-point contact while transitioning between the shop ramp and locomotive platform.

81.5.2 Stepping from One Car to Another
Application:

When stepping between the decks of one multilevel car to the deck of a connecting multilevel car, maintain three-point contact (two feet and one hand or two hands and one foot) and keep hands free of objects. When the distance between the cars is too great to maintain a comfortable three point contact, do not step between cars.

81.7 Riding Equipment
Application:

A. Do not Ride
Mechanical Department Employees must not:

- Ride any freight car, hood cart, or other specifically made devices used to transport parts or material by rail.
- Ride on engine steps when moving over a street, or highway crossing, or yard access crossing.
- On side ladders, leading to engine cabs on full body type locomotives.

B. Where to Ride
When riding locomotives, employee controlling the movement must position themselves on the side of the operator. Employee must ride the leading end of the lead locomotive or on the trailing end of the last locomotive while making a pulling movement. Employees must ride:

- In the step well or on the platform.
- On the platform over road crossings (except crossings used exclusively by railroad employees).
    - Employees may only ascend locomotive steps to platform for crossings only.

C. How to Ride
When riding locomotives, 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.

81.8.1 Avoid Fouling Hazards
Change to read:
While moving on-track equipment, employees must not strike or damage locomotives, cars, equipment, structures, or other property.

Do not leave equipment standing where it will foul equipment on adjacent tracks or cause injury to employees riding on the side of a car or engine.

On tracks where clearance point is indicated, leave equipment beyond the clearance point.

If clearance point is not indicated or visible, determine clearance point by standing outside the rail of adjacent track and extending arm towards the equipment. When unable to touch equipment, leave the equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.

Equipment may be left on a:

- Main track, fouling a siding track switch, when the switch is lined for the main track.
- Siding, fouling a main track switch, when the switch is lined for the siding.
- Yard switching lead, fouling a yard track switch, when the switch is lined for the yard switching lead.
  or
- Industry track beyond the clearance point of the switch leading to the industry.

81.8.3 Impaired Clearances
Application:
A. Occupying
Do not ride outside the cab of a locomotive or other equipment under impaired clearance conditions that exist on both sides of the track, examples include:

- Through gates, doorways, or elevated ramps (one or both sides of track).
- Into, out of, or within buildings or covered shops.

- Transfer tables and turn tables.

Where impaired clearances exist on only one side of the track, do not ride equipment on the same side as the impaired clearance condition. Riding is permitted inside the cab, on the center platform of a locomotive or on the opposite side of the impaired clearance. This includes:

- Next to a structure (e.g., buildings, sand towers, air emission towers, etc.).
- Any rigid obstacle that is within arm's reach of employee riding equipment (e.g., high stand derails or switches, portable platforms, utility vehicles, toolboxes, etc.).

Do not position yourself, or knowingly allow others to position themselves, between a structure and moving equipment when clearance is impaired.

Employees must not position themselves in doorways, gate openings, or any impaired clearances when movement passes. Impaired clearances exist when moving equipment and a structure or rigid obstacle are within an arm's reach (e.g., able to touch equipment with arm extended while standing with opposite shoulder next to obstacle).

B. Approaching
Before entering an impaired clearance area when an employee is riding on the equipment:

- Movement must be stopped at least 20 feet from the impaired clearance area to allow the employee to get off the equipment, and precede it in the clear.
  Or
- Where riding is permitted, employees must ascend locomotive steps and be positioned on the center platform prior to reaching the impaired clearance.

81.10 Moving Equipment in Locomotive, Car, or Maintenance of Way Repair Facilities
Addition:
These additions incorporate SOFA recommendations.
Before Moving Equipment
Locomotive movers and spotters are required to wear ANSI approved orange reflective outerwear. Locomotive movers and spotters will use a company approved switching lantern at night or during foggy or other low visibility conditions.

Two or More Locomotive Mover Crews
When two or more locomotive mover crews are working in the same facility, extra precaution must be taken. Two or more crews are prohibited from switching in the same track or on adjacent track or tracks, at the same time, without establishing direct (face-to-face) communication with all other crew members involved. This communication must be in the form of a face-to-face job briefing.

Training

Certified Locomotive Mover:
In order to move locomotives beyond a single track and through switches, an employee must be trained, certified, and be re-certified annually as a locomotive mover. The qualifications for certification are as follows:
Locomotive mover students must:

- Complete classroom instruction of 3 days.
- Pass a written exam with a score of 85% or better.
- Complete 40 hours of OJT (at least 16 hours must be during darkness).
- Pass a final performance evaluation by a certified locomotive mover trainer.

Qualified Single Track Mechanical Locomotive Spotter:
Locomotive single track spotters must:

- Complete classroom and OJT instruction of one day.
- Pass a written exam with a score of 85% or better.
- Complete a final performance evaluation by a certified locomotive mover trainer.
- Pass a yearly performance evaluation by a certified locomotive mover trainer.

81.10.1 Before Moving Equipment
Change to read:
A job briefing will be conducted between all involved employees. This must include a thorough understanding of moves to be made and what hand signals or radio communication will be used before moving equipment and:

- Cars must be coupled or secured to the locomotive, car mover or equipment, unless repair facility car moving systems are designed for other operation.
- Maximum speed must not exceed 5 mph.
- If hand signals are used, and the person giving signals disappears from view, movement must be stopped. If radio communication is used, distance and direction must be specified.

81.15 Car Doors
Addition:

When opening or closing doors, keep fingers clear of the edge or door jamb, casting or rail on which the door travels. Keep your body clear of the door opening to avoid injury from falling freight.

Check box car doors for damage by thoroughly inspecting the top and bottom track
and rollers. On plug doors, examine the roller assembly, locking rods and all crank arms. Make sure the door is properly tracked before opening it. If the door is off track, take necessary precautions before opening it. If there is evidence of load shift, i.e. bulging door, take action to relieve the pressure on the car door before opening it. Guard against spinning or kicking of handles.

Do not move car, without door stops in place, unless the door has been secured by other means to prevent movement of the door.

Close and open doors with a mechanical device if normal force used by one person cannot accomplish the task. Use of excessive force is prohibited. Always position yourself in the clear, should the door fall, and be prepared for any sudden movement of the door. Use proper body positioning to prevent injury.

Paragraph 3

Paragraph 3 applies when mechanical assistance is required to slide a car door along its tracks. When checking door tracks for damage, also ensure that end stops are in place and in good condition.

When mechanical assistance is necessary, it could mean that the door assembly is unstable. Before any attempt is made to move the car door:

• All employees must be clear of the door, and out of the line of fire and the red zone.

• All door latching devices such as pins, wedges etc. must be suspended in a release position, by whatever means is available.

82.2 Operating Switch by Hand
Change to read:
When switch is to be operated by hand, equipment must not pass the following limits:
Trailing Point movement:

- Stop movement before fouling adjacent track to prevent tension being placed on switch points and switch handle.

Facing Point movement:

- Stop movement a minimum of 20ft from switch points to prevent binding of switch and to allow for safe inspection of switch points.

Rule Updated Date

November 19, 2024

General Order

Effective Date: November 19, 2024

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ITEM 11: Moveable Point Frogs

Item 11: Moveable Point Frogs

Location:

- Listed on subdivision pages by symbol (11-2) or (11-3). Switches equipped with 2 switch machines will be identified with the character (11-2), and switches equipped
with 3 switch machines are identified with character (11-3).
- Identified by signs that are 24 inches wide by 18 inches high.

Signs:

- Approaching trains can view white signs with black borders and black lettering reading "Moveable Point Frog". These signs are placed directly across the track from each switch machine.
- Employees who are facing switch machines can view white signs with red borders and red and black lettering. These signs are placed directly across the track from each switch machine.
- In addition, decals are attached to each switch machine. These signs and decals read "IMPORTANT: This turnout is equipped with a moveable point frog."

Hand Operation #20 & #24 switches (11-2)

At #20 and #24 switches (11-2), there are two switch machines one of which is a moveable point frog machine.

After Receiving Permission:
At the switch point machine:

1. Inspect switch points (Ensure free of debris).(Do not remove debris until switch is placed in hand position.)
2. Unlock switch machine & place in hand position.
3. Operate the switch until switch point is seen to move. (This must be done even if the switch appears lined for intended route).
4. Line switch point for intended route & inspect.

At the frog point machine:

1. Inspect frog points (ensure free of debris). (Do not remove debris until switch is placed in hand position.)
2. Unlock frog machine & place in hand position.
3. Operate the frog until frog point is seen to move. (This must be done even if the frog appears lined for intended route).
4. Line frog point for intended route & inspect point.

Returning dual control switch machines to power:

After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator.

Hand Operation #30 switches (11-3)

At #30 switches (11-3) there are a total of three switch machines one of which is a moveable point frog machine.

After Receiving Permission:
Always operate the frog machine first.

1. Inspect frog points (Ensure free of debris). (Do not remove debris until switch is placed in hand position.)
2. Unlock frog machine & place in hand position.
3. Operate the frog until frog point is seen to move. (This must be done even if the frog appears lined for intended route).
4. Fully line frog point for intended route & inspect point.

At the first switch point machine:

5. Inspect switch points (Ensure free of debris). (Do not remove debris until switch is placed in hand position.)
6. Unlock switch machine & place in hand position.
7. Operate the switch until switch point is seen to move. (This must be done even if the switch appears lined for intended route).
8. Line switch half way, handle is in vertical position, and proceed to middle switch machine.

At the middle switch point machine:

9. Inspect switch points (Ensure free of debris). (Do not remove debris until switch is placed in hand position.)
10. Unlock middle switch machine & place in hand position.
11. Operate the switch until switch point rail is seen to move. (This must be done even if the switch appears lined for intended route).
12. Fully line switch for intended route & inspect point.

Return to first switch point machine:

13. Finish lining switch point for intended route. Inspect switch points.

Returning dual control switch machines to power:

14. After at least one unit or car has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the control operator.

Job Briefing
A job briefing must be conducted with the control operator so everyone has a clear understanding on the control point, route to be taken, and which switches must be operated by hand. When making crossover movements and hand operation is required, both ends of the crossover must be hand operated. You must operate double the number of switch machines. Inspect all switch points and all frog points.

Rule Updated Date

May 10, 2019

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ITEM 12: Track Breach Protection

Item 12: TRACK BREACH PROTECTION.

Track Breach Protection (TBP) is required on main track or controlled siding when occupying the area between:

- A main track and an adjacent track.
  or
- A controlled siding and an adjacent track.

Exceptions
This process does not apply under the following conditions:

- Employee is crossing track(s) at a 90° angle.
- Employee's equipment occupies or prevents entry into the adjacent track.
- Employee's train has TWC authority in non-signaled territory on the adjacent track.
- Employee's train has authority to move in either direction on the adjacent track except in Yard Limits or Restricted Limits.
- When the train dispatcher informs the employee the adjacent track(s) is out of service.
  or
- Employee occupying area adjacent to a foreign railroad's main track unless timetable instructions require protection.

Note: When employees are working on a track protected by Rule 5.13 (Blue Flag) or Roadway Worker Protection, or when a second employee is in a position to provide advance warning of any approaching trains, TBP is not required on the adjacent track(s).

Track Breach Protection Process
For an employee to establish TBP the following applies:
Step 1 - Establishing
Main Track & Controlled Siding (outside Yard Limits/Restricted Limits):
Contact train dispatcher or EIC and provide the following information:

- Train/Job ID, including name of employee establishing TBP.
- Limits, which must be defined by control points or whole mileposts.
- Track(s) designation(s).

Train Dispatcher or EIC must repeat back the information and employee establishing TBP must confirm by stating "That is correct".

Within Yard Limits or Restricted Limits
Employee will establish Protection as designated in timetable.

Train Dispatcher or EIC Notification:
Contact train dispatcher or EIC and provide the following information:

- Train/Job ID, including name of employee establishing TBP.
- Limits which must be defined by Yard Limits/Restricted Limits and/or mileposts.
- Track(s) to be protected.

Employee Established Over the Radio
Announce over the designated radio channel Track Breach Protection has been established (specifying limits with necessary detail) using the following format:

"Train/Job ID, Employee Name___, I am establishing Track Breach Protection at Location____ - between MP ____ and MP ___ or - on Track____."

Step 2 - Recording
TBP must be recorded and will include the following information:

- Date and time.
- Limits, including track(s).
- Name of employee(s) working with the employee establishing TBP.
- When crews are working together within TBP limits, all employees working within the limits must be listed on the TBP log.
- Time released.

In Effect
Track Breach Protection Requirements:

- Before entering TBP limits or designated Yard Limits or Restricted Limits, movements must attempt to contact the employee that established the TBP for instructions. Trains must make 3 attempts (on the designated radio channel) to contact employee in the area. If response is not received, train may enter area looking out for employees working in the area. When cars are on the adjacent track, crew must continue to attempt to contact employee while passing through limits.
- TBP is not in effect until the designated supervisor has been notified or designated employee announces the establishment of TBP over the radio or the train dispatcher confirms information has been relayed to approaching train (s).
- Employee receiving confirmation from the train dispatcher must repeat back the information and the train dispatcher will state "That is correct".
- Before granting permission for a train to enter TBP limits, employee must first notify all employees listed on the TBP log of the approaching train. However, crews may work together when necessary to complete work such as exchanging power etc.
- TBP cannot be transferred from one employee to another employee.
- TBP may not be released until it is known that all employees listed on the TBP log are clear of the designated track(s).
- TBP remains in effect until released by the employee who established TBP, the employee is no longer on duty or employee's hours of service limit has expired.

Initiating Movement

Prior to initiating movement on main track or controlled siding, crew must attempt to ascertain whether track breach protection is in effect using the following methods:

- Crew must contact designated supervisor.
- Make 3 attempts (on the designated radio channel) to contact crew(s) working in the area to determine if TBP is in effect. If response is not received, train may initiate movement, looking out for employees working in the area.

Exceptions: If train is initiating movement on or to the main track or controlled siding at a controlled signal displaying a proceed indication, or when crew has received information that TBP is not in effect from prior crew, it is not required to ascertain whether TBP is in effect.

Terms:

Adjacent Track
Parallel tracks that are not separated by a single lane roadway or similar distance are considered adjacent tracks.
Note: This definition only applies when determining if Track Breach Protection is required.

Breach
To enter area between two adjacent tracks.

Track Breach Protection (TBP)
Protection provided to prevent movements on adjacent track(s) while an employee is in the area between adjacent track(s). Rule 5.13 or 81.5.4 must be complied with when required.

Rule Updated Date

May 10, 2022

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ITEM 13: Train Defect Detectors

Item 13: Train Defect Detectors

13.1 General Instructions For All Train Defect Detectors

A. Required Action

To determine required action at a train defect detector, comply with these general instructions and instructions governing the specific detector type. Some locations have more than one defect detector type in service.

B. Use of Air Brakes and Train Speed

When operating conditions allow, avoid excessive braking, stopping, or reducing train speed below 15 MPH when approaching or passing detectors. Excessive braking may cause false indications on hot box detectors. Speeds below 15 MPH may cause 'Integrity Failure' or 'Slow Train' message. When a 'Slow Train' message is announced, refer to Item 13.8 Detector Failures for instructions.

C. Detector Failure

When a train defect detector fails for any reason, refer to Item 13.8 Detector Failures.

D. Axle Count

When a detector gives an axle count for a defect location and train speed was 15 MPH or higher while passing detector:

- Physically count axles from the head end, including locomotive axles, to the indicated axle.
- Inspect indicated axle and all axles on both sides of that car/platform/unit/well. If no defect is found, inspect 20 axles ahead and 20 axles behind, on both sides of train, from the indicated car/platform/unit/well.

When a detector gives an axle count for a defect location and train speed was below 15 MPH while passing detector:

- Physically count axles from the head end, including locomotive axles, to the indicated axle.
- Inspect indicated axle and all axles on both sides of that car/platform/unit/well. If no defect is found, inspect all axles that have passed over detector.

When a verbal defect detector transmits an axle count that disagrees with the train consist by a **variance of +/- 3 or more axles,** the train crew must:

- Immediately reduce speed to 30 mph and report the inaccuracy to the train dispatcher.
- After receiving corrective information, resume authorized speed.

Note:

- If previous detectors have transmitted correct axle counts and the train speed has not been below 15 MPH, the train may proceed at authorized speed. The inaccuracy must be reported to the train dispatcher.
- If operative detector transmits an axle count that disagrees with the train consist by a variance of +/- 3 or more axles and malfunction or integrity failure message is received, comply with 13.8.1 Failed Detector Situation Table.

E. Inspection

The inspection must ensure that:

- Retaining valve is in exhaust position.
- Hand brake is fully released.
- Brakes are not sticking.
- Truck bolster is not broken.
- Brake rigging is not down or dragging.
- Lading is not down or dragging between cars.
- Wheels are not broken and are properly positioned on the rail.
- Lading has not dropped down through container floors or cross members of multi-unit/well cars.

When a defect is found that cannot be corrected, and car is safe to move, set the car out and notify the train dispatcher. Mechanical personnel may inspect and/or repair the car and approve it for movement.

F. Notification

Notify the train dispatcher any time a train defect detector requires the train to stop and inspect for defects. The train dispatcher may have additional information from a remote readout.

Detectors may be on different subdivisions, crew districts or train dispatching territories. Therefore, train dispatchers and train crews must communicate information relative to inoperative detector or defective car to one another.

G. No AC Power

When detector transmits "No AC Power" message, notify the dispatcher. This is not to be considered a detector failure.

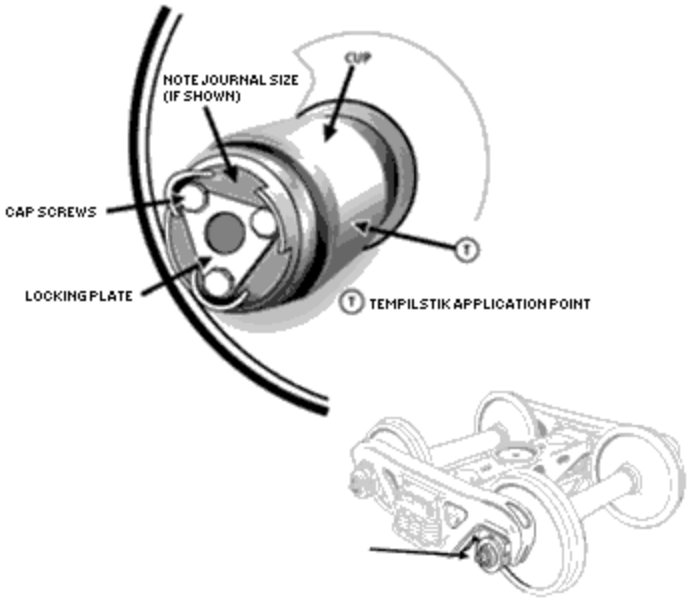
H. Unable to Complete Inspection

If a bridge or other physical characteristic prevents the required inspection, move the train not exceeding 10 MPH, no further than necessary to make the inspection. Observe movement, especially cars approaching a bridge structure. If any unusual condition is detected, stop movement at once.

I. Hot Box (Hot Journal) Detectors

When defect is detected, inspect a car for hot journal identified as follows:

- Inspect the journal identified by axle count using a temperature stick or temperature heat gun to determine if the journal is overheated. Set the car out if the overheated journal melts the mark made with the temperature stick or the temperature heat gun reading exceeds 170 degrees.



If the mark made with a temperature stick does not melt, temperature heat gun is unavailable, or when there are no obvious signs of overheating:

- Cautiously place your bare hand on the truck side frame.
- Move your hand toward the roller bearing cap, keeping in mind that any part of this equipment may be extremely hot.

- If you cannot hold your bare hand on the side frame or the roller bearing cap for a few seconds, set out the car.
- If any journal is noticeably warmer than other journals on the car, set the car out.
- Set out any car in a KEY train that experiences a hot box detector actuation, even if the overheated journal cannot be found on that car. However, do not set that car out if an overheated journal is found within 20 axles ahead of or behind that car/platform/unit/well. Mechanical personnel may inspect and/or repair the car and approve it for movement.
- Set out any car that experiences two consecutive hot box detector actuations, even if the inspection reveals no hot journal. However, passenger equipment and business cars do not need to be set out if the inspection reveals no hot journal.
- When a car is to be set out:
    - Determine car is safe to move.
    - Move the car not exceeding 10 MPH to the nearest location where it can be set out, unless a different location or speed is specified by the train dispatcher.
    - Note the type of defect on proper tags and attach tags, one on each side of the car.
    - Notify the train dispatcher.

Train may be moved ahead not exceeding 10 MPH to the location of the indicated defect under the following conditions:

- Train is not a KEY train.
- Train is not operating on rails with concrete ties.
- Indicated axle will not pass over a switch.
- It is not the second hot box detector activation on the same car.
- A visual observation of the train indicates no smoke, flame, or abnormal amount of dust.
- The train does not require excessive power to continue movement.

Note: Releasing a hand brake is not a corrective action for a hot journal. Inspect as outlined above.
Exceptions:

- Passenger equipment, business cars, and roadway maintenance equipment do not need to be set out if the inspection reveals no hot journal.
- If a detector identifies hot journals on more than 2 cars/platforms/units/wells on a train, it is usually a malfunction of the detector. In such case, if no defect is identified during the inspection, cars do not need to be set out at that location. Comply with Action No. 3 contained in 13.8.2 (Detector Failure - Action Table).
- When an overheated journal is identified on a steam locomotive or tender, it is not necessary to stop and inspect. However, the assigned manager in charge may instruct otherwise.

J. Dragging Equipment Detectors

When a defect is detected, visually inspect the train for dragging equipment as required by existing instructions. When operating on rails with concrete ties, if no defect is found, perform an audible inspection, listening for indications of a broken wheel, as follows:

- If grade conditions permit, position yourself 10 cars/platforms/units/wells ahead of the indicated axle and roll the train by 20 cars/platforms/units/wells, listening for indications of a broken wheel. If no axle count is given by the detector, audibly inspect the entire train.
- If grade conditions do not permit, proceed not exceeding 20 MPH to the first location where grade conditions do permit making the audible inspection.
- If a sound is heard suggesting a broken wheel (thumping sound), set out the car having that wheel and report it to the train dispatcher.

K. Hot Wheel Detectors

When a detector Timetable Character is paired with the 'H' character [#H, (#)H, (!)H+, etc.], it indicates the detector is equipped with a Hot Wheel Detector. The 'H' character does not change any requirements contained within Item 13 for the detector it is paired with.

When track bulletin or verbal information from train dispatcher instructs crew that a detector paired with Hot Wheel Detector is out of service, or when detector announces "Integrity Failure" or "Detector Malfunction, no action is required regarding the hot wheel detector provided train has not been notified that a hot wheel has been identified by the previous hot wheel detector.

When notified by the dispatcher that a hot wheel has been identified by a train defect detector the following applies:

- Immediately reduce to 30 MPH.
- The train must not operate over a bridge with a through truss structure or through a tunnel.
- If train will pass a second operative hot wheel detector within 30 miles:
  After the train clears the next hot wheel detector:
  - Dispatcher will notify crew if the train receives a defect on the same car and identify a location to stop and inspect.
  - If crew does not receive notification from dispatcher, train may resume maximum authorized speed
- If the train will not pass over a second operative hot wheel detector within 30 miles, contact the dispatcher to identify a location to stop and inspect.

If the crew is required to stop and inspect, the following applies.

- Inspect the car/platform/unit/well identified by axle count. Train may be moved ahead, not exceeding 10 MPH, to the location of the indicated defect.
- Ensure that all hand brakes on car/platform/unit/well are released.
- Ensure that the retainer valve is in the exhaust position.
- Inspect for sticking air brakes. Cut out air brakes if necessary to release brakes (Refer to Rule 30.2.2). If there are no obvious signs of overheating, cautiously place your bare hand near the wheel tread. If no heat is detected, cautiously move your bare hand on the wheel closer to the wheel tread, keeping in mind that any part of this equipment may be extremely hot. Inspect all wheels on the identified car/platform/unit/well.
- During inspection check wheels for flat spots and tread build-up. If a wheel on a piece of equipment has tread build-up or a flat spot more than 2-1/2 inches long, or if the wheel has adjoining flat spots that are each at least 2 inches long, the equipment must not be moved faster than 10 MPH and set out at the first available location.
- A car identified with a flat spot or tread build-up may remain in a train if the car is inspected by a qualified mechanical inspector and released for movement.
- If no defect is found, inspect the wheels and brakes on 20 axles ahead and behind the identified car/platform/unit/well on both sides of the train.

When obvious signs of overheating are identified and the cause cannot be corrected or car is not safe for movement, set the car out and notify the train dispatcher. When a car is set out due to a defect being identified, move the car if safe, not exceeding 10 MPH to the nearest location where it can be set out unless a different location is specified by the train dispatcher. Note the type of defect on proper tag and attach near defect

Releasing an applied hand brake or rectifying a stuck brake situation by cutting out the air or moving the retainer to the proper position will be considered a correction for a hot wheel defect. When the car/platform/unit/well will remain in the train, inspect it for a hot journal. Once the defect is corrected, move the car one car length and verify the wheels move freely.

When a hot wheel is identified on a steam locomotive or tender, it is not necessary to stop and inspect. However, the assigned manager in charge may instruct otherwise.

L. Talk On Arrival and Defect Only Detector

When a detector Timetable Character is paired with the '+' character [#+. (#)+, (!)+, etc.], it indicates the detector is equipped with the Radio Transmitted Talk On Arrival and Defect Only feature. If the detector does not transmit the arrival message, it is considered a detector failure. The '+' character does not change any requirements contained within Item 13 for the detector it is paired with.

Detectors equipped with the Talk on Arrival and Defect Only feature will normally not transmit a "No Defect" message. When detector does transmit this message, report the transmission to the train dispatcher; this is not considered a detector failure.

13.2 Hot Box or Hot Box and Dragging Equipment Detector with Radio Transmitted Defect Indicators

This applies to Timetable Characters "#" (Hot Box) and "(#)" (Hot Box and Dragging Equipment). The # detector inspects for hot journals. The (#) detector inspects for hot journals and dragging equipment.

The detector may announce to the crew that the system is operational when movement begins over the detector. The detector transmits a "No Defect" message if no defects are detected after the train passes the detector.

When a defect is detected:

- Hot Box:
  - Immediately begin reducing speed using train handling techniques to minimize in-train forces. Stop the train once the train has cleared the detector and inspect for defect.
  - Stop the train immediately if second detector activation on same car and inspect for defect.
- Dragging Equipment:
  - Stop the train immediately and inspect for defect.
- Inspect the train for the indicated defect(s) as required by Item 13.1.

13.2.1 Hot Box, High Wide Shifted Load, and Dragging Equipment Detector with Radio Transmitted Defect Indicators

This applies to Timetable Character '(!)'. The (!) detector inspects for hot journals, High Wide Shifted Loads, and dragging equipment.

The detector may announce to the crew that the system is operational when movement begins over the detector. The detector transmits a 'No Defects' message if no defects are detected after the train passes the detector.

When a defect is detected:

- Hot Box:
  - Immediately begin reducing speed using train handling techniques to minimize in-train forces. Stop the train once the train has cleared the detector and inspect for defect.
  - Stop the train immediately if second detector activation on same car and inspect for defect.
- High Wide Shifted Load or Dragging Equipment:
  - Stop the train immediately and inspect the train for the indicated defect.
  - A crew that receives a high wide shifted load message must inspect the train for any load that has excessive width or height, or any load that has shifted.
    Train may be moved not to exceed 10 MPH to assist making inspection. If necessary, set the car out. In addition, notify the train dispatcher, who will call the signal maintainer to reset the detector.
- Inspect the train for the indicated defect(s) as required by Item 13.1.

13.3 Reserved

13.4 High Wide Shifted Load Detector and Dragging Equipment Detector with Radio Transmitted Verbal Defect Indicators

This applies to Timetable Characters **"&"** and **"(&)"**.

Some detectors announce to the crew that the system is operational when movement begins over the detector.

When a defect is detected:

- Stop the train immediately and inspect the train for the indicated defect.
- Follow instructions that apply in Item 13.1 (General Instructions for All Detectors).

- A crew that receives a high wide shifted load message must inspect the train for any load that has excessive width or height, or any load that has shifted. Train may be moved not to exceed 10 MPH to assist making inspection. If necessary, set the car out. In addition, notify the train dispatcher, who will call the signal maintainer to reset the detector.

Detectors identified by "(&)" only transmit a message if a defect is found.

13.5 Dragging Equipment Detectors Equipped With Radio Transmitted Verbal Defect Indicators Talk On Defect Only

This applies to Timetable Character **"%"**.

The detector announces only when it detects a defect.

If a defect is detected, an alarm tone or message transmitted, stop the train immediately and inspect for dragging equipment. If no axle count is given, and the train has cleared the detector, inspect the entire train.
If the train has not cleared the detector, inspect the portion of the train that has passed over the detector. If another defect is detected when departing, inspect the portion of the train not previously inspected.

13.6 Wheel Impact Detector Equipped With Radio Transmitted Verbal Defect Indicators - Talk On Defect Only

This applies to Timetable Character **"(@)"**.

The detector announces only when it detects a defect.

The detector announces defects approximately 30-45 seconds after the entire train has passed the detector.

The detector will transmit total high impact wheels detected for the entire train followed by each individual impact including the Level of each impact. Car initial and number (when available) along with total car count from head end of train including the locomotives will follow. For Level 2 impact defects, the specific wheel location on the indicated car may also be announced.

- For either Level 1 or Level 2 impacts, stop the train and inspect indicated car for damaged wheel. If safe to move, limit train speed to 30 MPH and set indicated car out at next available location, unless a different location is specified by the train dispatcher.

If transmission is not clearly understood, reduce train speed to 30 MPH and contact the train dispatcher for defective equipment identification.

13.7 Wheel Down Indicators
This applies to Timetable Character '(*)'
When a wheel down is detected by a trackside indicator, stop the train as soon as possible consistent with train handling techniques that will minimize in-train forces.

13.8 Detector Failures

When a detector fails to operate properly, refer to Item 13.8.1 (Failed Detector Situation Table) to identify the specific detector failure situation and train type. Note the action number listed on the right side of the table for that type failure situation and train type directly under the type detector that has failed. Refer to the table in Item 13.8.2 (Detector Failure - Action Table) and comply with the instructions for that action number.

13.8.1 Failed Detector Situation Table

Failed Detector Situation Refer to 13.1 General Instructions for all Detectors to determine specific application of Detector type.	Type of Train	**Type Detector**			
		13.2 (#) , # or (#)+ # +	13.2.1 (!) or (!)+	13.4 & or (&)	13.5 % 13.6 (@) 13.7 (*)
a. Track bulletin or verbal information from train dispatcher instructs crew that detector is out of service.	KEY Trains	3	3 & 4	4	NAR
	Other Than KEY Trains	5	4 & 5	4	NAR
b. Detector announces 'Dragging Detector Malfunction'	All Trains	7	1	1	7
c. Detector announces "Integrity Failure" or "Detector Malfunction" message – and NO defect message or tone received.	All Trains	2 & 3	Integrity Failure: 2 & 3 Detector Malfunction: 2 & 4	2 & 4	7
d. Detector announces 'Slow Train' and NO defect message or tone received.	KEY Trains	2 & 3	2, 3 & 4	2 & 4	NAR
	Other Than KEY Trains	5	5	NAR	NAR
e. Detector announces 'Integrity Failure' or 'Detector Malfunction' message AND defect message or tone received.	All Trains	1 & 2	1, 2 & 4	2 & 4	1 & 2
f. Crew members receive NO arrival or exit message from the detector.	KEY Trains	1 & 2	1, 2 & 4	2 & 4	NAR
	Other Than KEY Trains	2 & 3	2, 3 & 4	2 & 4	NAR
g. Crew members do not understand arrival or exit message from detector and NO defect message or tone received.	KEY Trains	1 & 2	1, 2 & 4	2 & 4	NAR
	Other Than KEY Trains	2 & 3	2, 3 & 5	2 & 5	NAR
h. Crew members do not receive or understand arrival or exit message from detector AND defect message or tone received.	All Trains	1 & 2	1, 2 & 4	2 & 4	% or (*) 1 & 2 (@) 6

i. Detector announces 'High/Wide Detector Malfunction'.	All Trains	NAR	2 & 4	2 & 4	NAR

NOTE: "NAR" in the action number column means "No Action Required."

13.8.2 Detector Failure - Action Table

Action	Detector Failure - Action Required
1.	Stop the train at once and inspect train on both sides for defects. For Hot Box detectors (13.2) immediately reduce speed using train handling techniques to minimize in-train forces. Once the train clears the detector, the train must be stopped immediately, within 4 miles, consistent with good train handling.
2.	Immediately attempt to report condition to the train dispatcher.
3.	Proceed as follows: • Key trains not exceeding 30 MPH. • All other trains may proceed at maximum authorized speed. Within 30 miles of the failed detector, one of the following conditions must be complied with: **a.** Train passes other detector(s) that checks for all of the same defects. All of the same defects must be checked for within the 30 miles. **b.** Crew may establish rollby inspection of the train by qualified employees located on both sides of the train. Speed must not exceed 10 MPH during this inspection. **c.** Stop the train and make a rollby inspection of the train by crew members located on the ground. Speed must not exceed 10 MPH during this inspection. Roll-by inspection may be made on one side. A walking inspection or Rule 6.6 may be used to make inspection of the opposite side. **d.** The train dispatcher may choose to stop the train and have the crew make an inspection of the entire train. **e.** Stop and inspect the entire train when the next consecutive detector that checks for any of the same defects fails.
4.	Freight trains approaching the protected structure must stop and inspect entire train before reaching protected structure. Freight trains moving away from the protected structure must stop and inspect entire train unless instructed that the detector is out of service. When an inspection is required, train may be moved not to exceed 10 MPH to assist making inspection.
5.	Proceed at maximum authorized speed unless otherwise instructed by the train dispatcher. Stop and inspect the entire train when the next consecutive detector(s) that checks for any of the same defects fails.
6.	Reduce train speed to 30 MPH and immediately contact the train dispatcher to determine if the train contains a defective car.

	. If train does not contain any defective car, train may proceed at maximum authorized speed. **b** If train contains either a Level 1 or Level 2 impact defect, stop the train and inspect indicated car for . damaged wheel. If safe to move, limit train speed to 30 MPH and set indicated car out at next available location, unless a different location is specified by the train dispatcher.
7.	If a train receives this message on two consecutive detectors: **a** Immediately stop the train and contact the dispatcher. · **b** Inspect the entire train on one side looking for dragging equipment. .

NOTE: If the train dispatcher has access to a remote readout, crew may be governed by train dispatcher's instructions. If remote readout shows there is no defect, the train dispatcher may authorize the train to continue at normal speed. If remote readout shows location of a defect, the train dispatcher may authorize the train crew to perform the required inspection using axle count for defect location.

Rule Updated Date

November 19, 2024

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ITEM 14: Operating With Foreign Railroads

Item 14-A: UPRR Crews Operating Over Foreign Railroads

Unless otherwise specified, operation over foreign railroads will be governed by the following:

- Operating Rules of the foreign railroad. However, UPRR crews operating on a foreign railroad are required to properly complete a UPRR Form 20849 or a similar foreign railroad form as required by UPRR rules.
- Timetable and Special Instructions of the foreign railroad.
- UPRR Air Brake and Train Handling Rules.
- UPRR Safety Rules.
- UPRR Instructions For Handling Hazardous Materials (Form 8620).
- Respect all restrictions listed in UPRR System Special Instructions Item 2-A (Parts 1, 2 and 9 through 12), Item 2-B, Item 2-C and Item 14 unless foreign railroad's requirements are more restrictive.

When operating on foreign railroads that have more restrictive speed restrictions for empty cars, consider any car as empty when the explanation in the Commodity column of the train consist shows NONREV or the car as a revenue empty (REVMTY or MTYTTX). This is true despite the entry in the Car Kind column.

Rule Updated Date

May 10, 2022

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Item 14-B: Foreign Railroads Operating on UPRR Tracks

A. Train Make-up Requirements.

Foreign railroads operating on the UPRR are governed by that railroad's train make-up requirements.

B. Track Stability

When track work has affected track stability, the train dispatcher may advise all affected trains that Air Brake Rule 34.2.13 applies on a track restriction using either of the following methods:

1. Issue a Form C track bulletin, using the words "Air Brake Rule 34.2.13 applies to Track Bulletin No._".
   or
2. Issue a Form A track bulletin, including in the TRACK(S) column the identification of the tracks affected, followed by "34.2.13".

When using this method, the following train handling instructions apply only to the limits identified on that line of the track bulletin.

When Level 1 or Level 2 heat restrictions are in effect, Rule 34.2.13 applies to the extent practicable.

Crew members must remind the engineer sufficiently in advance of any restriction or known conditions to allow the engineer to use train handling techniques that will minimize in-train forces.
When proceeding through the limits of the track bulletin, radio speed restriction, or wherever instructed to comply with Rule 34.2.13, the engineer must use the following train handling techniques to minimize in-train forces when possible:

- Use throttle modulation or low dynamic brake amperage.
- Avoid making slack adjustments.
- Avoid applying or releasing automatic brakes.
- Make power and brake adjustments before or after the restriction.

When operating with distributed power at the rear of the train:

- When in power, operate in synchronous mode or in independent mode with distributed power 1-3 throttle notches below the lead consist.
- When in dynamic brake, operate in synchronous mode or in independent mode with distributed power 1-3 throttle positions above the lead consist.

C. Awareness Forms.
Foreign railroad crews operating on the UPRR are governed by that railroad's rule concerning awareness forms.

D. Operating Key Trains
The maximum authorized speed for a Key Train is 40 MPH within a High Threat Urban Area (HTUA). (Refer to SI-03 in Area Timetable or Subdivision General Order for HTUA Restrictions.)

Rule Updated Date

May 10, 2022

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ITEM 15: Work Orders

Item 15: Reporting Completion of Work

A. Electronic Reporting
Employees assigned an electronic device must:

- Use the device to report terminal work events and tasks as required, and work events between Circ-7's after making pickups and/or spots at industries or pulling and/or delivering at interchange.
- Report the work performed on the device in a timely manner. (i.e. reporting terminal work events and tasks on the mobile device as soon as the work event is completed, or reporting within thirty minutes of leaving the track or location for non-terminal work events.)
- Report all additional/unscheduled work, including intraplant switches on the device. (Use Form 29363 if the device fails to accept the work.)
- Use the device's camera to take photographs of customer exception(s) which prevent work events from being completed. (i.e. locked gate, full spot, blocked/inaccessible track, etc.)
- Close out the work order as complete, when work is completed, on the device prior to logging off.

Be governed by instructions for Railroad Supplied Electronic devices as contained in GCOR Rule 2.21.

Problems with the device must be reported to the employee's supervisor and the Help Desk (877-281-0931). If problem is not resolved, the work order reporting must be completed via the MyUP Portal version of the Mobile Work Order Application.

A train with work events is required to have a printed copy of the train's work order even when using the mobile device to report work events.

B. Non-Electronic Reporting
Crews not assigned a Railroad Supplied Electronic Device that move railroad cars between Circ-7's (stations), pickup and/or spot industries, or pull and/or deliver to interchanges, will be provided with a computer-generated Work Order document (may be generated by a crew member). This document will be furnished at the beginning of or during their tour of duty. Record the following times on this document:

- Pull and/or Pickup times.
- Station/Yard Setout times.
- Industry Placement (spot) times.
- Interchange Delivery times.

When making Station/Yard Setouts, record the yard number and track number of the track into which each car was set out. Also record the direction and sequence of each set out car showing how each car lines up within the track.

When handling any car differently from the instructions that appear on the Work Order document, note the exception to the car detail line in the blank space appearing above it. Print the Setout Exception code in the "EX" column of the car detail line. For every line of scheduled work not done, print the appropriate "Not Done Reason" code in the "EX" column. All car detail lines prescribing work within the limits of the crew assignment must be accounted for as either done or not done.

As each block of work is completed, record the movement data in a timely manner.

Sign and date the completed form.

When performing unscheduled or additional work (work not prescribed by the Work Order document), record the moves on Form 29363.

Faxing to the Customer Care and Support (Customer Care and Support)
Sending a completed Work Order Issue document to the appropriate Work Order representative at the Customer Care and Support by means of facsimile (FAX) transmission may be done only under the following circumstances:

- No functioning desktop computer or Mobile Work Order Device.
- The MyUP Portal Network is unable to establish a communication (Network is down.)

Before faxing, call the Help Desk at company telephone 8-106-7092 or toll free 1-877-281-0931. Explain your situation and request a Fax Authorization Number. Record the Fax Authorization Number on the first page of the Work Order Issue document (or its equivalent) before faxing.

Customer Care and Support cannot process any scheduled or unscheduled work without a Fax Authorization Number.

Hours of Service Situations
1. Approaching 12 Hours on Duty
Whenever an assignment is approaching 12 hours on duty, update the assignment's Work Order document completed to that point. All car detail lines appearing on the Work Order document covering work between the crew's initial station and the 12-hour duty limit point must be properly completed with all required entries. This includes both scheduled work and unscheduled, or additional work recorded on customer supplied documents or Form 29363.

2. Failure to Complete Trip
If an assignment fails to reach its final terminal, ascertain from the train dispatcher, appropriate yardmaster, carrier officer, or other proper authority as to whether he or she should either:

- Leave the Work Order documents with the train for a relieving crew to report.
  or
- Take the Work Order documents into final terminal for handling per local instructions.

Whenever called to perform relief service, report all Work Order data that was left with the train being relieved. Upon reaching the final terminal, report all work for the relieved train before performing additional hours-of-service relief moves or other work. This instruction applies when called for relief service and when diverted from present assignment for the purpose of performing relief service.

C. Work Trains
When assigned to a work train, complete Work Orders and report the location of cars in the work train at the end of tour of duty; including train symbol, Circ-7, and yard/track where train was left.

Completed Work Orders can be faxed or called into the Company Material desk in the NCSC at:

- Fax: 1-800-877-5108 or company line: 8-106-2178

- Phone: 1-800-243-5417 option 3 or company line: 8-106-7047 option 3

D. Automatic Equipment Identification (AEI) – All Trains
As each train makes its way through a terminal, or across a territory, it may pass one or more AEI scanners. AEIs will update consist and may report some pickups and/or setouts, industry placements, and interchange activity. Do not assume that an AEI is doing any or all of the Work Order reporting. The crew is responsible to ensure the work order is completed accurately as the work was being performed.

Rule Updated Date

May 10, 2022

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ITEM 16: Tornado Watch and Warning Instructions

Item 16: Tornado Watch and Warning Instructions

Background:

Tornadoes are the most violent of all storms. Paths of destruction range from a few hundred feet in width to more than a mile, and extend the length of a city block to three hundred miles. Rotating winds exceed 200 MPH. Forward travel varies from 5 to 70 MPH, with an average speed of 40 MPH. It is impossible to predict exactly where they will develop or touch ground. The greatest potential for such storms exists from April through September and ordinarily occurs between noon and midnight, with more than 50% striking between 1500-1900.

Standard Personnel Protection:

In a home or office go to the basement, away from windows, and seek protection under a workbench, heavy table, stairway, or in a closet. In a building lacking a basement, go to an inner hallway or room, including bathrooms or closets, on the lowest floor. Cover yourself with heavy blankets to protect from flying glass and debris. If unable to reach one of the above areas safely, the nose compartment of a diesel unit is a suitable shelter. Abandon mobile homes.

Tornado Warning Means:

A tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters. The train dispatcher will keep trains informed of limits of Tornado Warnings. Train crews are to follow the instructions as outlined below:

- During a Tornado Warning, all train movements and yard activities must stop. Any train enroute will stop and employees will seek appropriate shelter.
- Consistent with the safety of all involved, avoid stopping a train:
  - On high bridges,
  - Across railroad and highway crossings at grade, or
  - Anyplace where the presence of a train could be a hindrance.
- After a Tornado Warning has been cleared and such information has reached the train crews, if the path of the tornado crossed the tracks at their location or in the immediate vicinity, crew members must:
  - Inspect their train before moving to find out if any damage or derailment has occurred to the train, and
  - Inspect track structure for signs of damage from the tornado.
- After inspecting the train, the train may depart. However, be prepared to stop when approaching bridges, culverts and other points likely to be affected within the limits of the tornado path. If unable to proceed safely, stop the movement and do not resume movement until safe to do so. Advise the train dispatcher of such conditions by the first available means of communication. In case of communication failure, strictly follow standard operating procedures.

County-Based Tornado Warning Means:

A tornado has been sighted or verified by the National Weather Service or by persons associated with official weather spotters somewhere within the county. Train crews notified of such warnings are to follow the instructions as outlined below:

- During a County-Based Tornado Warning continue all train movements and yard activities, keeping alert for any signs of weather change. The danger signs to look for are severe thunderstorms, hail, roaring noise, a funnel cloud or any combination of the above.
- In the event a crew spots a funnel cloud, immediately notify the train dispatcher consistent with the crew's safety, giving details as to the sighting.
- Any train or yard assignment having an occupied caboose, upon being notified of a County-Based Tornado Warning will stop and move the occupants from the caboose to the locomotive consist. If while moving to the head end, the County-Based Tornado Warning turns into a Tornado Warning or a funnel cloud is spotted, the exposed persons should seek shelter in a nearby ditch, ravine, culvert, under a bridge, or in a depression. If none of these are available, lay face down on the ground with the hands over head. Be far enough away so the caboose or any other car in the train cannot topple on you.

Rule Updated Date

May 10, 2022

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ITEM 17: Accessing General Orders and Bulletins Electronically

Item 17: Accessing General Orders and Bulletins Electronically

Timetables, subdivision general orders, and system general orders may be accessed from the UPRR Employee website or ERT Mobile App. Select **Departments**, then select **Operating**. Next select **Union Pacific Rules (including GCOR)**, then click on the desired link from the **Electronic Rules, Bulletins and Timetable (ERT)** page.

Rule Updated Date

June 1, 2018

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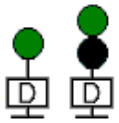
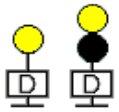
ITEM 18: Distant Signals

Item 18: Distant Signals

RULE	NAME	ASPECT	INDICATION
9.1.1	Distant Signal Clear		Proceed. If delayed as per Rule 9.9 or Rule 9.9.1 between this signal and block or interlocking signal, proceed prepared to stop before any part of train or engine passes the next signal.
9.1.2	Distant Signal Approach		Proceed prepared to stop before any part of train or engine passes the next signal or switch point indicator. The maximum speed is 20 MPH+ within interlocking limits or within the limits of the control point for which Distant Signal Approach is displayed at the distant signal.
9.1.3	Distant Signal Approach Diverging		Proceed prepared to advance on diverging route at next signal at prescribed speed through turnout.

Rule Updated Date

May 2, 2016

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ITEM 19: Block and Interlocking Signals

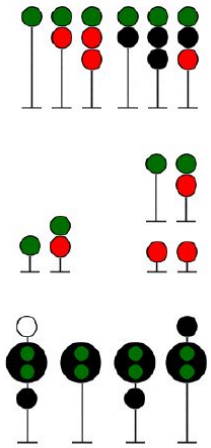
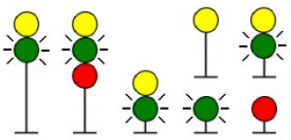
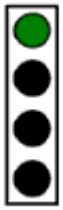
Item 19: Block and Interlocking Signals

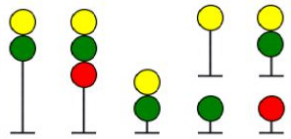
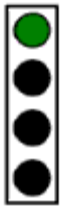
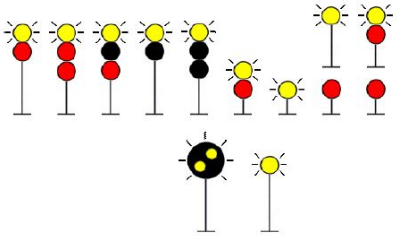
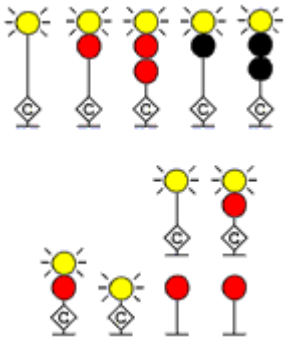
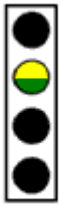
Explanation of symbols: White light Dark Flashing color

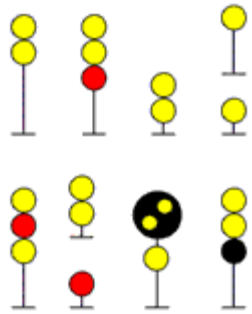
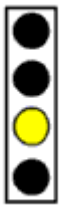
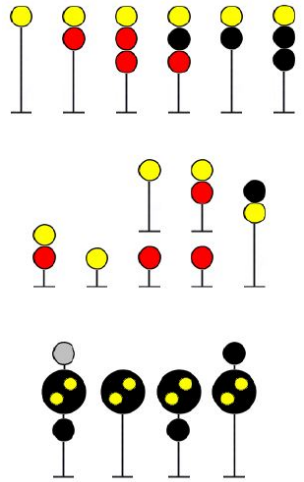
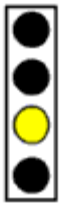
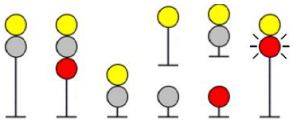
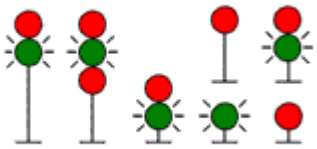
"G" plate Lunar light XX Number plate "C" plate

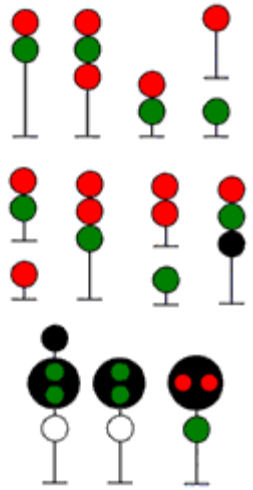
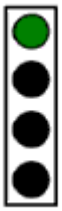
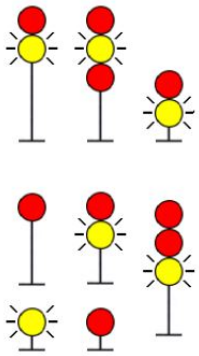
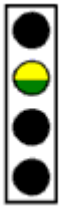
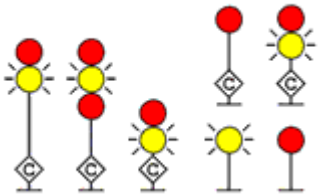
Color position signal head - When one color only is displayed in a color position signal head, it is to be considered the same as two lights.

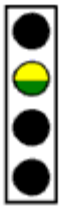
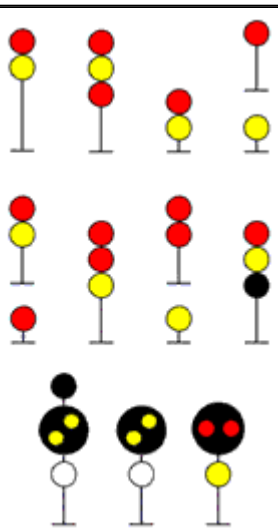
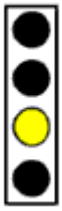
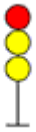
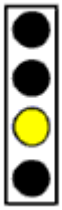
Unless otherwise specified or signal mast is shown with a number plate, signal aspects shown apply to signals with or without number plates.

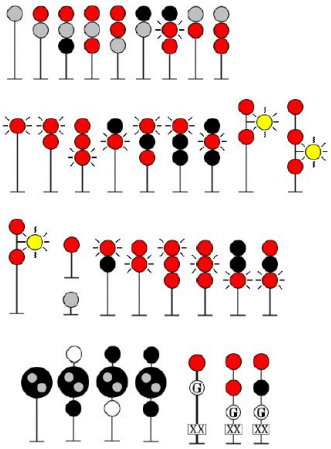
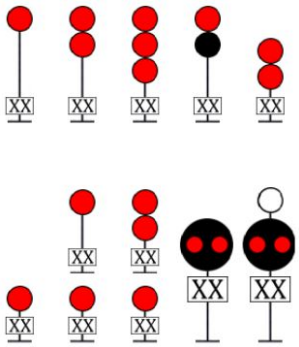
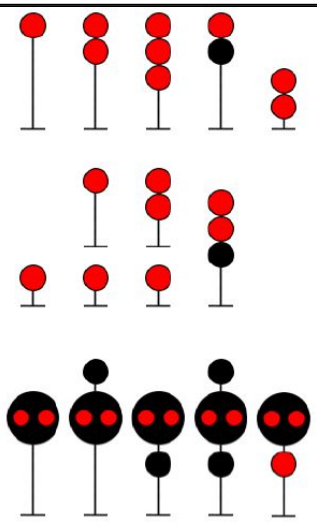
RULE	NAME	ASPECT	ACS	INDICATION
9.2.1	Clear			Proceed.
9.2.2	Approach Clear Sixty			Proceed. Trains exceeding 60 MPH proceed prepared to pass the next signal not exceeding 60 MPH. When signal governs the approach to a control point with a 60 MPH turnout speed, be prepared to advance on diverging route.

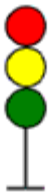
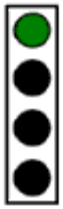
9.2.3	Approach Clear Fifty			Proceed. Trains exceeding 50 MPH proceed prepared to pass the next signal not exceeding 50 MPH. When signal governs the approach to a control point with a 50 MPH turnout speed, be prepared to advance on diverging route.
9.2.4	Advance Approach			Proceed prepared to stop at second signal. Trains exceeding 40 MPH proceed prepared to pass the next signal not exceeding 40 MPH. When signal governs the approach to a control point with a 40 MPH turnout speed, be prepared to advance on normal or diverging route. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.
9.2.4P	Advance Approach Passenger	 With diamond shaped "C" plate and with or without number plate		Proceed prepared to stop at second signal. Freight trains exceeding 40 MPH proceed prepared to pass the next signal not exceeding 40 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 60 MPH. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.

9.2.5	Approach Diverging			Proceed prepared to advance on diverging route at next signal at prescribed speed through turnout.
9.2.6	Approach			Proceed prepared to stop before any part of train or engine passes the next signal. Freight trains exceeding 30 MPH must immediately reduce to 30 MPH. Passenger trains exceeding 40 MPH must immediately reduce to 40 MPH. When the next signal is seen to display a proceed indication, the requirement to proceed prepared to stop no longer applies.
9.2.7	Approach Restricting			Proceed prepared to pass next signal at restricted speed, but not exceeding 15 MPH.
9.2.8	Diverging Clear Limited	 Without number plate		Proceed on diverging route. Speed through turnout must not exceed 40 MPH

9.2.9	Diverging Clear	 Without number plate		Proceed on diverging route not exceeding prescribed speed through turnout.
9.2.10	Diverging Advance Approach	 Without number plate		Proceed on diverging route not exceeding prescribed speed through turnout and be prepared to stop at second signal. Trains exceeding 40 MPH proceed prepared to pass the next signal not exceeding 40 MPH. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required. When signal governs the approach to a control point with a 40 MPH turnout speed, be prepared to advance on normal or diverging route.
9.2.10P				Proceed on diverging route at prescribed speed through turnout prepared to stop at second signal. Freight trains proceed prepared to pass the next signal not exceeding 40 MPH. Passenger trains exceeding 60 MPH must immediately reduce to 60 MPH. When the next signal is seen

	Diverging Advance Approach Passenger	With diamond-shaped "C" plate and without number plate		to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.
9.2.11	Diverging Approach	 Without number plates		Proceed on diverging route at prescribed speed through turnout prepared to stop before any part of train or engine passes the next signal. Freight trains exceeding 30 MPH must immediately reduce to 30 MPH. Passenger trains exceeding 40 MPH must immediately reduce to 40 MPH. When the next signal is seen to display a proceed indication, the requirement to proceed prepared to stop no longer applies.
9.2.12	Diverging Approach Diverging	 Without number plates		Proceed on diverging route not exceeding prescribed speed through turnout prepared to advance on diverging route at the next signal at prescribed speed through turnout.

9.2.13	Restricting			Proceed at restricted speed, not exceeding prescribed speed through turnout when applicable.
9.2.14	Restricted Proceed			Proceed at restricted speed.
9.2.15	Stop	 Without number plates		Stop before any part of train or engine passes the signal.
				Proceed on diverging route at prescribed speed through turnout. Freight trains exceeding 50 MPH must immediately reduce to 50 MPH. Passenger

9.2.16	Diverging Approach Clear Fifty	 Without number plate		trains may proceed, but must be prepared to pass the next signal not exceeding 50 MPH. When signal governs the approach to a control point with a 50 MPH turnout speed, be prepared to advance on diverging route.
9.2.17	Clear Restricting	 Lake St. Interlocking		Proceed at restricted speed, not exceeding 10 MPH.
9.2.18	Approach Restricting	 Lake St. Interlocking		Proceed at restricted speed, prepared to stop.
9.2.19	Stop	 Lake St. Interlocking		Stop before any part of train or engine passes the signal.

Rule Updated Date

May 5, 2021

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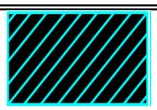
ITEM 20: PTC Track Line Display

Item 20: PTC Track Line Display

COLOR	DISPLAY	DESCRIPTION
Green		Maximum Authorized Speed
Yellow		Speed Restricted
Red		No Authority to Occupy / Not on PTC Train Route
Gray		PTC Non-Enforcement Area
Red Hash		Stop Required
Yellow Hash		Restricted Speed
Blue Hash		Form B Limits

Rule Updated Date

July 11, 2023

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ITEM 21: Slide Warning Indicator

Item 21: Slide Warning Indicator

RULE	NAME	ASPECT	INDICATOR
9.4.1	Slide Warning	SLIDE WARNING INDICATOR (To apply to trains governed by fixed signal with which connected).  (Illuminated)	When signal requires movement at restricted speed to next signal. Keep close lookout for rocks or other obstructions, broken, bent and damaged rail.

Rule Updated Date

May 2, 2016

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ITEM 22: Roadway Signs

Item 22: Roadway Signs

FOR CROSSINGS*

FOR TUNNELS, ETC.

At locations where crossing signs are displayed, sound whistle as required by Rule 5.8.2 (7) regardless of the type of crossing train is approaching.

* If a number sign is attached to the crossing sign, it shows the number of crossings for which the whistle signal is required.

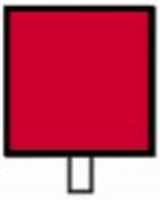
Crossings where quiet zones are in effect.
If a number sign is attached to this crossing sign, it shows the number of successive crossings for which the sign applies.

DERAIL SIGN

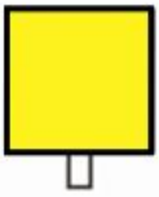
*Also used to designate runaway track locations.

PORTABLE DERAIL SIGN

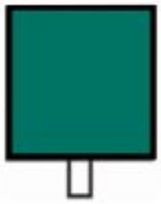
YELLOW-RED FLAG PROTECTING MEN OR EQUIPMENT



RED FLAG



YELLOW FLAG



GREEN FLAG

STOP SIGNS

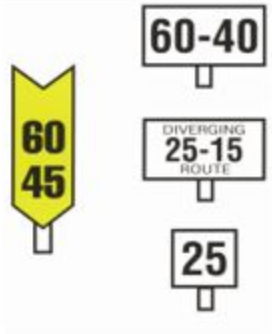
YARD LIMIT SIGN

RESTRICTED LIMIT SIGNS

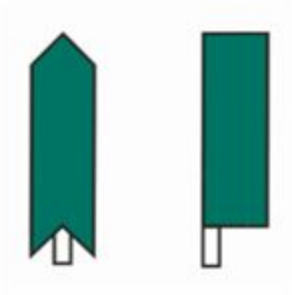
HIGH THREAT URBAN AREA (HTUA) SIGNS

BEGIN HTUA

END HTUA



PERMANENT SPEED RESTRICTION SIGN



PERMANENT RESUME SPEED SIGN

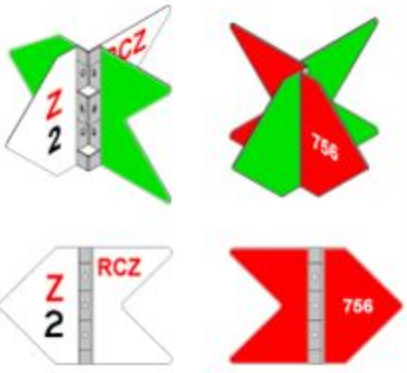
CROSSING WARNING DEVICE MALFUNCTION
Stop at the sign. Rule 6.32.2 Application.

REMOTE CONTROL ZONE SIGNS

END OF TRACK SIGN

SWITCH FLAGS

Simulate a Switch or Derail Improperly Lined



REMOTE CONTROL SWITCH TARGET

HAND OPERATED CROSSOVER SWITCH TARGET

FOG BOARD

Placed approximately 1,000 feet in advance of absolute signals on select subdivisions.

Rule Updated Date

July 11, 2023

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ITEM 23: Security Alert Instructions

Item 23: Security Alert Instructions

To protect our employees, the general public and our railroad from terrorist acts, Security Alert Levels 1 - 4 have been established. As the Alert Level increases, the actions to be taken by our crewmembers also increases. The actions required by crewmembers include all actions for the current level, as well as those for the lower Alert Levels. For example, if Alert Level 3 is in effect, actions required in Alert Levels 1, 2 and 3 are required.

Definitions:

Alert Train: Any train that is handling one or more hazardous materials in class 1.1, 1.2, 2.1, 2.3, anhydrous ammonia, any hazardous material shipment that requires the phrase "Poison or Toxic Inhalation Hazard" on the shipping paper, or otherwise identified. These shipments are identified on the train consist as "ALERT SHIPMENT" or RSSM SHIPMENT".

Alert Level: The level of threat to security of rail operations.

Unusual Item: An attachment to railroad rolling stock that is not a part of the normal rail equipment, or a suspicious package or container located on or near railroad property.

Unusual Stops: As used in Level 3, examples of this include:

- Any radio transmission from an unknown person requesting the train to stop.
- Any unknown person attempting to stop the train by hand signals.
- A dark signal or signals that are improperly displayed.
- Stop or Stop and Proceed signals at other than meeting points.
- Unattended fusee.
- Detectors that are out of service without a track bulletin.
- Emergency vehicles fouling the track without prior notification from the dispatcher.

The following are the minimum requirements for train and engine crews, based on the various Alert Levels. Each level has additional requirements.

Alert Level 1 (The "new normal" day-to-day operations):

- Remain vigilant for suspicious activities, trespassers, or vehicles (abandoned or occupied) on or near railroad property. Report suspicious activities to the train dispatcher, or to RMCC (1-888-UPRR-COP / 1-888-877-7267).
- Keep required employee identification immediately available at all times.

Alert Level 2 (Heightened security awareness):

- When inspecting train, increase vigilance and scrutiny of railcars, looking for unusual items.

Alert Level 3 (A credible threat of attack on the U.S. or railroad industry):

- Train dispatcher will communicate with crews on Alert trains at least once every 60 minutes to determine location and status in areas where train tracking through the train dispatch system is not available, such as in TWC or Rule 9.14 territory.
- Immediately notify the train dispatcher of any unusual stops.

Alert Level 4 (A confirmed threat of attack against the U.S. railroad industry or actual attack in the U.S.):

- Crew members must identify themselves by employee identification badge when picking up outbound locomotives at service facilities.
- Meeting points with passenger trains will be established and communicated to crews by the train dispatcher.
- Train inspections fron the ground may be eliminated on instruction of the train dispatcher.
- Do not leave unattended and unsecured locomotives on line without the authority of the train dispatcher.
- Alert Trains will not be allowed to operate in a tunnel at the same time with a passenger train.

When Security Alert level is above Level 1, when crews complete switching operations at all plants and facilities equipped with gates, the gates must be immediately shut and locked to maintain security for those facilities. Local railroad instructions may provide relief for facilities not requiring that degree of security.

When Security Alert levels are above Level 2, crews must not provide any shipping information. Instruct customers to contact the Customer Care and Support for inquiries.

Other requirements may be imposed by local management or the train dispatcher, as necessary.

Rule Updated Date

May 10, 2022

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ITEM 24: California Proposition 65 Warning

Item 24: California Proposition 65 Warning

Locomotives, diesel equipment, and work areas in the State of California contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

California Proposition 65 requires that companies warn employees of exposures to chemicals which are "known to the State of California" to cause cancer, birth defects, or other reproductive harm. Over 500 chemicals are included in California's list, including alcoholic beverages, aspirin, caffeic acid (contained in coffee), diesel engine exhaust, gasoline engine exhaust, lead, oral contraceptives, silica (sand), tobacco smoke, and unleaded gasoline (wholly vaporized).

Any questions about Proposition 65 may be addressed to the Union Pacific Values Line at 1-800-998-2000.

Rule Updated Date

May 2, 2016

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EXPLAIN: Explanation of Characters

EXPLAIN: EXPLANATION OF CHARACTERS

SYMBOL REPRESENTS	
123.40	MILE POST FOR SUB LIMITS ARE IN BOLD AND ITALICIZED
ABS	AUTOMATIC BLOCK SIGNAL
CTC	CENTRALIZED TRAFFIC CONTROL
EC	ELECTRONIC CONVEYANCE
PTC	POSITIVE TRAIN CONTROL
RL	RESTRICTED LIMITS
TWC	TRACK WARRANT CONTROL
DT	DOUBLE TRACK
#MT	MULTIPLE MAIN TRACK – # (number MT's)
!	SIDING WITH ENTERING SIGNAL ALLOWING ASPECT MORE FAVORABLE THAN LUNAR
(A)	AUTOMATIC INTERLOCKING
B	BASE RADIO STATION
D	DRAW BRIDGE
(G)	GATE-NORMAL POSITION AGAINST CONFLICTING ROUTE
G	GATE-NORMAL POSITION AGAINST THIS SUBDIVISION
(M)	MANUAL INTERLOCKING
(S)	STOP SIGN
T	TURNING FACILITY
(X)	RAILROAD CROSSING AT GRADE
X	CROSSOVER BETWEEN MAIN TRACKS – DUAL CONTROL SWITCHES
Y	YARD LIMITS
(Z)	MANUAL INTERLOCKING WITH RELEASE BOX AND A M/W KEY RELEASE IF EQUIPPED
(11-2)	SPECIAL INSTRUCTIONS APPLY ITEM 11 - 2 SWITCH MACHINES
(11-3)	SPECIAL INSTRUCTIONS APPLY ITEM 11 - 3 SWITCH MACHINES

C	CENTER
+	HEAD – END RESTRICTION ONLY
(R)	REDUCE / RESUME SPEED SIGNS AT OTHER THAN PRESCRIBED LOCATION
(#)	HOT BOX AND DRAGGING EQUIPMENT DETECTOR WITH RADIO TRANSMITTED VERBAL INDICATOR
#	HOT BOX DETECTOR WITH RADIO TRANSMITTED VERBAL INDICATOR
(!)	HOT BOX, HIGH WIDE SHIFTED LOAD AND DRAGGING EQUIPMENT DETECTOR WITH RADIO TRANSMITTED DEFECT INDICATOR
&	HIGH WIDE SHIFTED LOAD AND DRAGGING EQUIPMENT DETECTOR WITH RADIO TRANSMITTED VERBAL INDICATOR
(&)	HIGH WIDE SHIFTED LOAD AND DRAGGING EQUIPMENT DETECTOR WITH RADIO TRANSMITTED VERBAL INDICATOR - TALK ON DEFECT ONLY
%	DRAGGING EQUIPMENT DETECTOR WITH RADIO TRANSMITTED VERBAL INDICATOR – TALK ON DEFECT ONLY
(@)	WHEEL IMPACT DETECTORS EQUIPPED WITH TRANSMITTED VERBAL DEFECT INDICATOR - TALK ON DEFECT ONLY
(*)	WHEEL DOWN INDICATOR - TALK ON DEFECT ONLY
H	DETECTORS EQUIPED WITH HOT WHEEL DETECTOR - REMOTE READOUT ON DEFECT ONLY
+	DETECTOR EQUIPPED WITH RADIO TRANSMITTED TALK ON ARRIVAL AND DEFECT ONLY FEATURE

Rule Updated Date

July 11, 2023

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OTHERS: Other Available Reference Material

OTHERS: Other Available Reference Material

OTHER AVAILABLE REFERENCE MATERIAL								
Area #	Area Name	Order #	Area #	Area Name	Order #	Area #	Area Name	Order #
1	Portland	PB-27020	9	Kansas City	PB-27028	17	Houston	PB-27036
2	Salt Lake City	PB-27021	10	Salina	PB-27029	18	San Antonio	PB-27037
3	Roseville	PB-27022	11	Iowa	PB-27030	19	Livonia	PB-27039
4	Los Angeles	PB-27023	12	Twin Cities	PB-27031	0	All Area 3 Hole Singles	PB-27038
5	Sunset	PB-27024	13	Chicago	PB-27032	0	3" Binder	PB-27019
6	Denver	PB-27025	14	St. Louis	PB-27033	0	Area Tabs (19 Each)	PB-27018
7	North Platte	PB-27026	15	North Little Rock	PB-27034	0	System Special Instructions	PB-27015
8	Council Bluffs	PB-27027	16	Dallas / Ft. Worth	PB-27035	99	UPRR TRAINING TT	PB-27099

Rule Updated Date

April 1, 2015

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